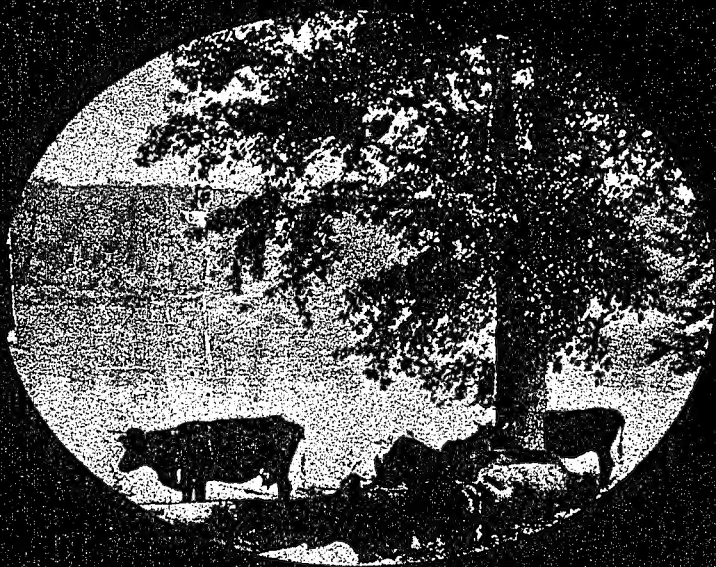
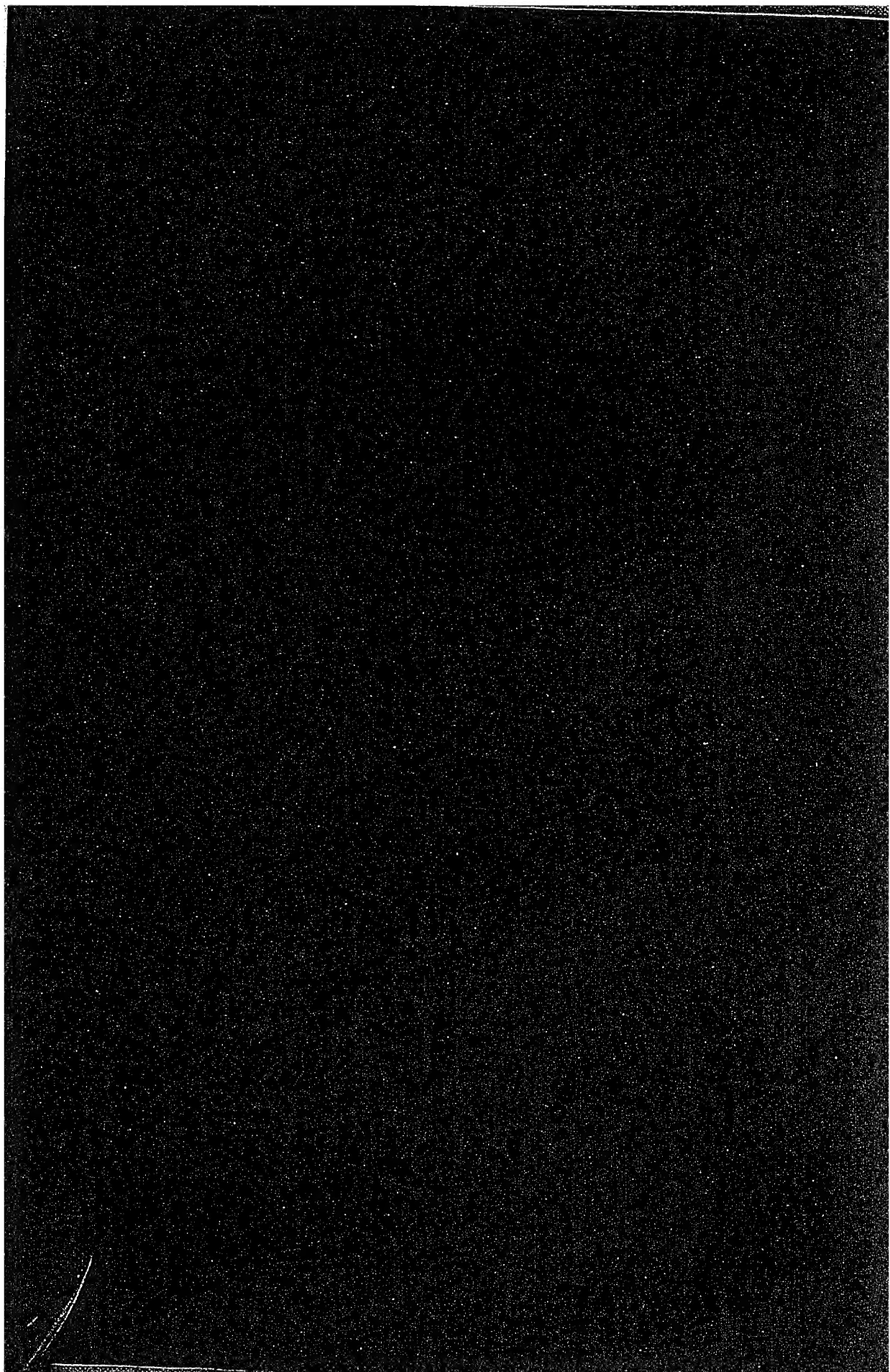


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THE CANADIAN North-West Territories

AN OFFICIAL HANDBOOK CONTAINING RELIABLE INFORMATION CONCERNING THEIR RESOURCES

Compiled and Published under the direction of G. H. V. BULYEA,
Commissioner of Agriculture, Canadian North-West Territories.

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() The statistical information contained in the following pages has, in every instance, been derived from official sources. The writer desires to express his indebtedness, especially to Mr. Isaac Cowie, of Edmonton, Geo. Ham, Advertising Agent of the Canadian Pacific Railway Company, and to Mr. C. A. Magarth, Land Commissioner, Canadian North-West Irrigation Company, Lethbridge, for valuable information received and to Mr. Frank Pedley, Superintendent of Immigration, for the prompt loan of illustrations.

C. W. P.

Department of Agriculture,

Regina, N.W.T., August, 1901.

TABLE OF CONTENTS

PART I

1. Introductory.
2. Boundaries, System of Land Survey, Etc.
3. Climate (with statistical tables).
4. System of Government and Taxation.
5. Educational Facilities.
6. General Description of the Various Sections of the Canadian North-West Territories as follows :

1. ASSINIBOIA.

- (a) Eastern Assiniboia.
- (b) Western Assiniboia.
- (c) Chief Towns.

2. SASKATCHEWAN.

- (a) Chief Towns.

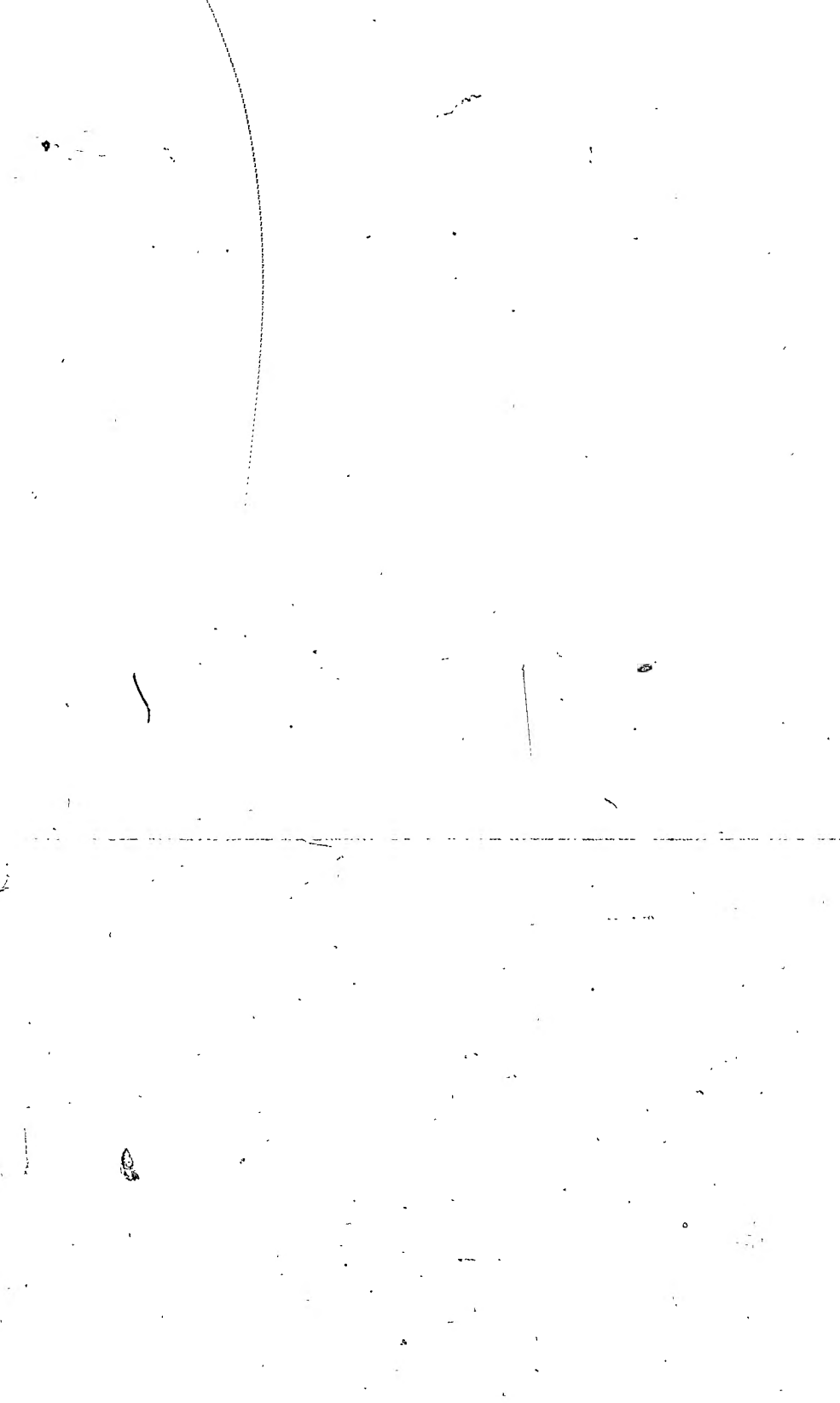
3. ALBERTA.

- (a) Northern Alberta.
- (b) Southern Alberta.
- (c) Chief Towns.

7. What Delegates from the United States and Others say about the Canadian North-West.

PART II

8. Agriculture (with statistical tables).
9. Irrigation.
10. Live Stock.
 - (a) Cattle.
 - (b) Horses.
 - (c) Sheep.
 - (d) Hogs and Poultry.
11. Dairying (with statistical tables).
12. Markets and Transportation.
13. Mineral Resources.
14. Shooting and Fishing.
15. Homestead Regulations.
16. Railway Land Regulations



THE Canadian North-West Territories

PART I

INTRODUCTORY

"For Canada the hour of destiny has struck. She has the physical basis for an Empire; and the stream of immigration which has now begun will swell into a mighty movement of population like that by which our central West was occupied, until her fertile lands shall be the homes of millions of prosperous people. Thus far American immigrants are largely in excess of those from other lands outside the British groups, and American thought will have a mighty influence in moulding the character of the coming commonwealths of Western Canada. The English-speaking immigrants outnumber many fold all those of other tongues; and thus it is made sure that both the great Republic and the nascent nation adjoining will be loyal to the idea of constitutional liberty, and, standing side by side, will work together to advance that Anglo-Saxon civilization which seems destined to dominate the world."

American Writer in "The New England Magazine."



THE selection of a future place of residence is, it must be admitted, a very momentous matter. Various phases of the question come up for consideration by the prospective emigrant, such as climate, healthfulness, geographical situation, character of public institutions, educational facilities, and last, but not least, the nature and extent of the natural resources and advantages of his proposed adopted home and the scope afforded individuals with the average endowment of capital, brains and muscle. Perfect indeed would that country be which satisfied the demands of everyone. Such perfection is not claimed for the Canadian North-West Territories. We honestly believe, however, that we possess those natural advantages which, wisely utilized, go a long way towards the creation of happy and prosperous homes, and it is the object of this publication to direct attention to the Canadian West as a favourable field for settlement of those who, in their present surroundings, have a limited prospect of improving their condition. Success in Western Canada, perhaps more than anywhere else, depends rather on the individual than on the favourable or unfavourable auspices under which he may make his start, and it is with pardonable pride that Westerners point to scores of leading men in agricultural and mercantile circles as well as in public

life, whose force of intellect and indomitable perseverance, have lifted them from humble spheres to guide the destinies of our magnificent Western heritage.

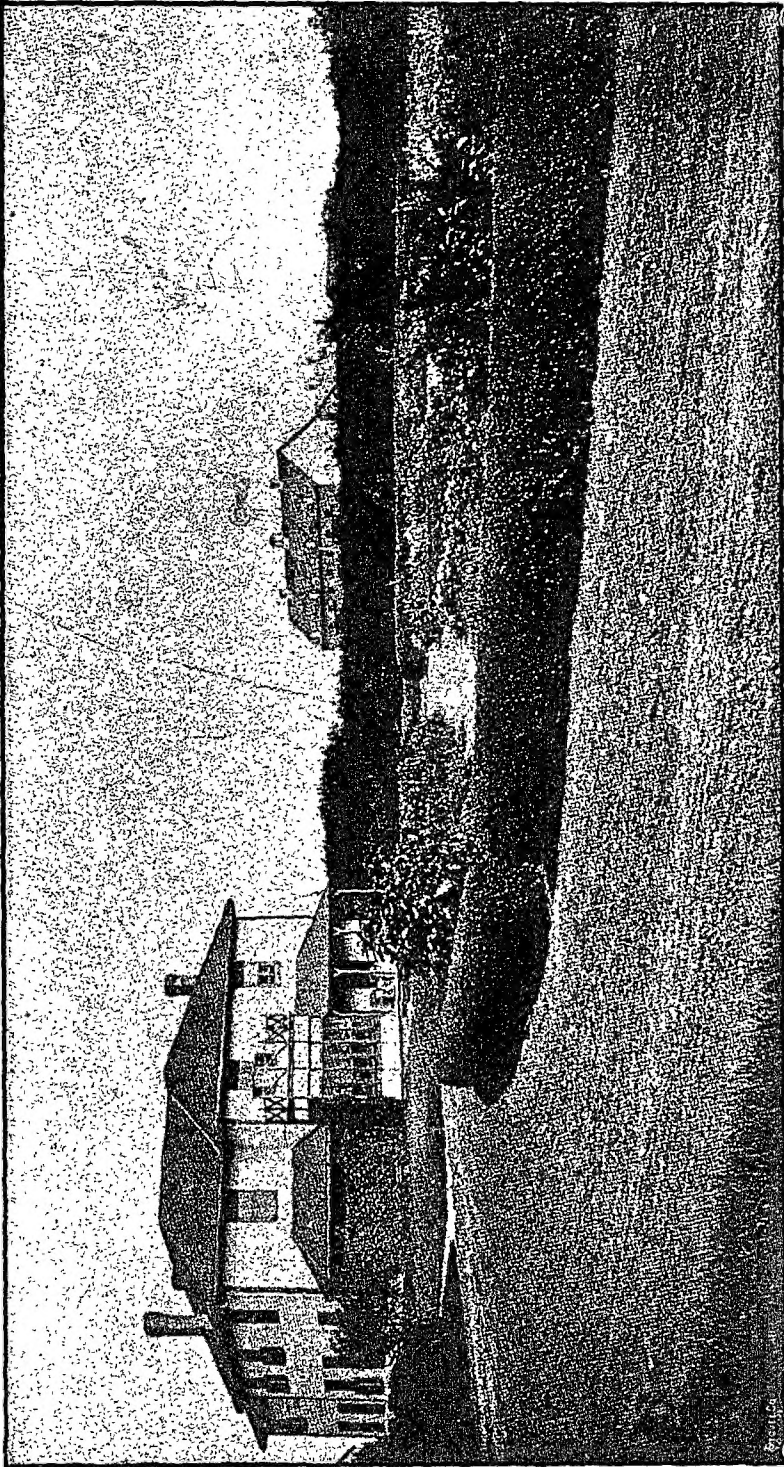
Much harm has been done by the publication in earlier years of exaggerated and unreliable information concerning the Canadian North-West Territories. An attempt will, therefore, be made to state the case strictly on its merits. The information contained in the following pages has been abstracted chiefly from the annual reports of the Territorial Department of Agriculture and Statistics, and the tables and figures quoted are, therefore, clothed with the authority of official endorsement. It is clear that a country, which has an area several times larger than the whole of Great Britain, while the total population does not reach that of a fair sized manufacturing town, is either very much under-populated or grossly lacking in the means for supporting life. We propose to show that the former is the actual state of affairs.

It has been argued, and with some degree of propriety, that it seems a strange procedure on the part of a Government to attempt to bring further population into any country where the citizens are fairly prosperous and satisfied with their lot. This, however, is a superficial view. The Government is not actuated by any motives of philanthropy in advertising the resources of the Canadian North-West. It is purely a business venture for which an ultimate satisfactory return is expected. It is earnestly hoped that only desirable individuals will be attracted, whose presence will materially aid in developing the latent resources of our country and further improve the social and economical conditions of the population already here.

The Canadian North-West is a country of vast extent, only sufficiently developed to reveal the immensity and possibilities of its potential wealth. Less than a short twenty-five years ago its white population could be numbered in four figures. To-day, immigration is pouring in at the rate of twenty thousand souls per annum. A huge stream of humanity fleeing from the grinding competition of the Old World and Eastern States and Provinces, seeking free or cheap lands and the wider scope of a new field of labour.

Boundaries

The organized Canadian North-West Territories are bounded on the east by the Province of Manitoba, on the west by the Province of British Columbia, on the south by the States of Montana and North Dakota and on the north by the Territory of Athabasca. These Territories consist of three provisional districts, namely, Alberta, Saskatchewan and Assiniboia. The District of Alberta covers an area of 100,000 square miles; Saskatchewan, 114,000 square miles; and Assiniboia, 90,340 square miles, making a total of 304,340 square miles.



Government Experimental Buildings, Eastern Assiniboia

System of Land Survey

The lands are laid off in townships, practically square in form, bounded on the east and west sides by true meridians of longitude and on the north and south by chords of the circular parallels of latitude. The tiers of townships are numbered from one upwards, commencing at the International boundary, and lie in ranges from east to west, numbered in regular order westward from certain standard lines called principal meridians. Each township is subdivided into 36 sections containing 640 acres, more or less, divided by road allowances 66 feet in width. Each section is in turn divided into four quarter sections of 160 acres each, which are designated the south-east, the south-west, the north-east and the north-west quarters. The corners of each division are marked on the ground by suitable posts, rendering it an easy matter to locate any particular piece of land.

Climate

There are three questions which, in one form or other, the prospective settler is sure to ask, and which he must have satisfactorily answered, before finally making his choice.

1. Is the climate a healthy one?
2. Is the winter severe? The summer hot?
3. Are the climatic conditions prevailing during the summer favourable to agricultural operations?

If asked such questions in relation to the North-West Territories of Canada, we can truthfully reply to them categorically as follows:—

1. Unquestionably so. The open nature of the country, clear, dry atmosphere and abundance of bright sunshine, its elevation (varying from 1,402 feet to 3,389 feet above the sea level) and the fresh breezes which blow across its plain, all tend to make it one of the healthiest countries in the world. There is an entire absence of malaria, and there is no disease peculiar to the country. The western portions of the country have attained a considerable reputation as health resorts, particularly for persons of consumptive tendencies, and many who have found life a burden through delicacy of constitution in other countries have "renewed their youth like the eagle" by a few months' residence in our beneficent climate.

2. Is the winter severe? At times and at places it is. That is to say, between about the 15th of December and the 15th of March the thermometer frequently registers a temperature considerably below zero, as may be seen by the subjoined table. At this period also storms, known locally as "blizzards," occasionally occur. During such, however, very low temperatures rarely prevail. Having stated this, the

worst has been said. With the aid of comfortable houses and proper clothing and furs, the North-West settler defies the winter at its worst.

The average weather during the winter in Eastern Assiniboia, Northern Alberta and Saskatchewan is clear, calm and cold, with intense bright sunshine. The snow, which never falls to more than a few inches in depth on the prairies, becomes dry and powdery. Under such circumstances life is enjoyable and healthful. The average settler is a cheery soul and fond of social gatherings and amusements for which the winter, which suspends most agricultural work, affords many opportunities. Low temperatures in winter in this dry climate cause no inconvenience unless accompanied by high winds, which is not often the case. The immigrant may prove this conclusively by watching the rosy-faced school children rolling each other in the dry, powdery snow on a fine winter day when the thermometer perhaps stands several degrees below zero.

The winter in Southern Alberta and Western Assiniboia is a season of bright, cloudless days, infrequent and scanty snowfalls and frequent and prolonged breaks of warm weather, heralded by the chinook wind. Waggon's are used during the entire year, and it is only in occasional seasons that sleighs are necessary for brief periods. In January and the early part of February there are sometimes short periods of cold, sharp weather. Heavy snowstorms have at times covered the prairie more than a foot deep, but this is very exceptional. The winter generally breaks up in February with a grand blowing of the warm wind from the west, followed by a period of from one to three weeks of warm, bright weather, the beginning of Southern Alberta's spring. The earliest spring flowers appear in March. In April follow false indigo, shooting stars and violets, and in May the evening primroses, vetches and lupines are in their glory. May is generally fine, warm and bright, June and the earlier part of July rainy, the remainder of July, August, September, October and generally November warm and dry. The summer, July to September, is characterized by hot days, relieved by a never-failing breeze, and cool nights, but the warm golden days of autumn, often lasting well into December, are the glory of the year. The grand characteristic of the climate as a whole, and the one on which the weather hinges, is the chinook wind, so called because it blows from the region formerly inhabited by the Chinook Indians on the banks of the lower Columbia river. It is a warm, dry wind, blowing from the mountains across the plains, and its principal characteristic is its power of rapidly melting the snow, or almost it might be said, of drying it up, as frequently no water runs from it. To it is due the pleasing dryness of every hollow on the prairie, even the deepest coulees, or prairie ravines. The effect of this wind in winter may be described as little short of miraculous, in its clearing away of the snow, always scanty in amount, with amazing celerity. A gale from the north will blow for a

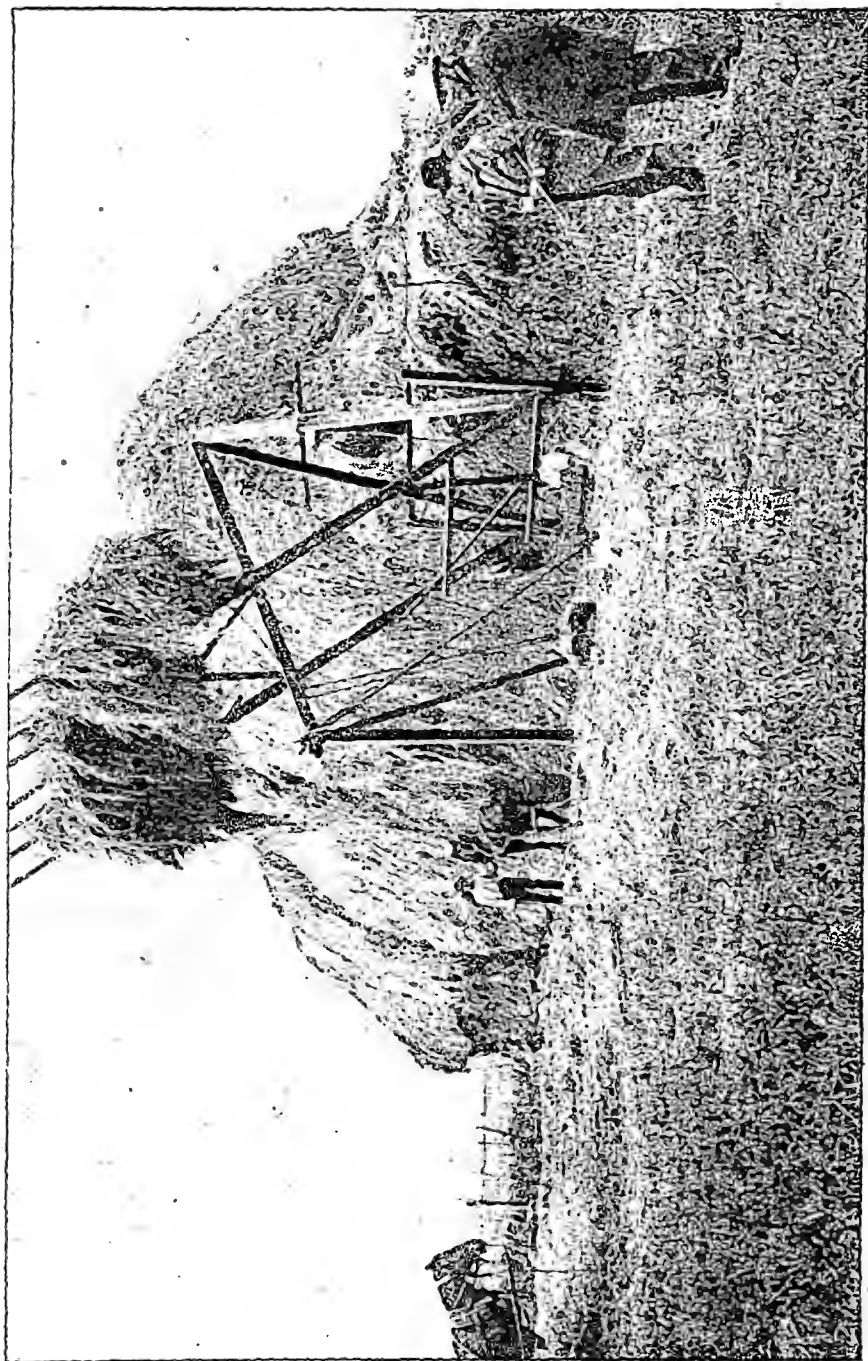
day or two, powdering the prairie with drifted snow, and at times sending the cattle, horses and wild game to the shelter the coulees, or prairie ravines, afford. Then the wind lulls, and a breeze from the west springs up. It is the warm chinook, in balmy contrast to the biting eastern or northern snow gales. A few hours suffice for the disappearance of all traces of the snow, and the cattle and horses are once more dispersed over the ranges, feeding on the hay provided by nature for the herds and flocks during winter in this favoured land.

The same cause which obviates the inconvenience which might under other circumstances arise from low temperatures in winter, namely, the dryness of the atmosphere, also operates in the settler's favour in summer time, permitting of a rapid radiation of the heat communicated to the land by the intensely powerful rays of the sun in our cloudless skies. It thus happens that however extreme the temperature may be during the day (and as will be seen from the subjoined table, the thermometer sometimes rises to over 106° in the shade), the nights are always cool, allowing of perfect rest. Of course, such extremely high temperatures are exceptional, but it will be seen that temperatures of over 100° in the shade are by no means uncommon. Here again the dryness of the atmosphere is individually helpful, by rendering the cooling action of perspiration, Nature's great safeguard, most effective. The writer is not aware that any case is on record of deaths in the Territories directly attributable to excessive heat, while, on the other hand, only a few weeks ago, we read in our newspapers that no fewer than 250 persons perished in one day in the city of New York from excessive heat. The highest temperature recorded there at that time was 99.8° .

3. In replying to the question, "Are the climatic conditions prevailing during the summer favourable to agricultural operations?" the matter of rainfall is, of course, of first importance in non-irrigable sections. From the statement given below it will be seen that the normal precipitation in the Territories does not differ largely from that of the State of Montana, directly to the south; but it may be stated that of late years there would seem to be a distinct tendency toward increased precipitation in the Territories.

Tables are subjoined showing the highest temperatures, the lowest temperatures, and the mean temperatures, during the whole year for the last five years, and the total annual precipitation for the last ten years, all for well distributed points.

It only remains to add that in such a vast extent of territory, with so many varying local conditions, the climate cannot be expected to be uniform. But each portion of the country has its own peculiar advantages in the way of climate, and the settler can select for himself that portion of the country for his home, where the conditions are likely to be most favourable to the particular line of farming which he wishes to follow.



Stacking Irrigated Hay in Southern Alberta

HIGHEST TEMPERATURES.

STATION	YEAR	JANUARY	FEBRUARY	MARCH	APRIL	MAY	JUNE	JULY	AUGUST	SEPTEMBER	OCTOBER	NOVEMBER	DECEMBER
Qu'Appelle	1896	39.4	42.8	43.4	68.0	72.0	88.7	90.8	88.4	80.8	79.5	34.0	41.0
"	1897	38.0	30.0	...	81.4	84.5	89.3	88.0	94.3	86.0	78.0	64.5	39.0
"	1898	30.6	38.0	36.7	74.8	84.6	98.0	96.7	88.7	88.8	56.7	49.6	42.2
"	1899	38.0	40.0	29.0	63.0	72.0	79.0	93.5	81.5	80.0	77.0	58.6	43.0
"	1900	42.6	32.0	42.0	79.5	92.0	100.5	93.5	94.8	80.0	70.2	50.0	38.2
Regina	1896	38.0	40.0	45.0	68.0	74.0	91.0	93.5	90.0	82.0	80.3	41.5	40.5
"	1897	36.0	26.0	...	83.0	91.5	91.0	94.5	91.5	84.0	81.5	68.0	44.0
"	1898	41.0	40.5	37.5	72.5	85.0	99.0	...	91.0	90.0	52.0	46.0	42.0
"	1899	48.0	52.0	23.0	65.0	74.0	88.0	...	85.0	82.0	...	...	...
"	1900	...	...	42.0	89.0	99.0	102.0	93.0	97.0	83.0	70.0	51.0	39.0
Prince Albert	1896	32.2	42.2	44.8	68.3	76.8	85.3	91.5	80.1	81.9	77.0	32.0	44.2
"	1897	25.0	21.9	...	81.0	83.8	79.6	88.4	86.8	83.0	74.4	63.0	38.0
"	1898	35.5	23.0	33.0	70.0	82.0	...	91.0	86.5	84.2	61.0	44.0	43.0
"	1899	36.4	45.8	26.5	67.0	88.6	80.0	86.5	77.5	81.2	80.0	52.5	48.0
"	1900	53.2	22.0	43.4	79.0	86.2	93.0	77.9	81.0	75.0	64.0	46.0	45.0
Swift Current	1896	50.0	50.0	52.0	68.0	77.8	94.0	97.0	88.0	82.0	81.6	44.0	48.0
"	1897	40.0	34.0	...	78.6	90.0	95.0	87.5	96.0	85.0	76.4	66.0	40.0
"	1898	33.0	41.3	41.5	73.0	79.5	95.0	98.5	93.2	84.0	68.0	48.0	48.0
"	1899	41.0	41.5	41.0	67.0	72.0	83.0	98.0	80.0	81.0	76.0	60.0	47.3
"	1900	59.0	40.0	66.0	74.5	90.0	104.0	95.0	95.0	80.0	70.0	59.0	...
Medicine Hat	1896	52.6	59.5	60.4	74.4	79.5	98.3	100.7	90.2	89.2	84.5	53.6	52.6
"	1897	49.7	37.8	...	81.7	90.7	85.7	92.8	99.5	90.0	77.8	67.2	46.8
"	1898	39.9	48.3	43.8	77.8	80.8	94.8	101.8	95.8	86.8	87.8	58.8	59.8
"	1899	46.3	49.8	43.3	74.1	78.2	90.6	97.8	82.6	86.6	72.0	...	50.8
"	1900	62.0	45.0	63.8	80.5	86.0	106.6	101.8	97.0	81.3	75.8	63.8	53.8
Calgary	1896	51.0	59.0	55.3	68.3	72.3	94.0	95.0	85.3	85.0	73.3	47.3	48.8
"	1897	45.5	40.3	...	75.8	88.0	78.8	86.3	90.3	79.6	67.3	35.9	44.0
"	1898	44.3	44.8	42.3	76.0	76.0	84.3	91.0	87.0	83.3	68.0	48.0	46.0
"	1899	49.0	55.0	49.0	70.0	71.0	77.0	89.0	78.0	77.0	74.5	58.0	56.0
"	1900	50.0	50.0	60.0	76.0	79.0	92.0	85.0	90.0	77.0	71.0	64.0	50.0
Macleod	1896	52.0	61.0	60.0	71.0	74.0	98.0	102.0	89.0	89.0	77.0	54.0	63.0
"	1897	...	46.0	...	75.0	89.0	80.0	87.0	96.0	84.0	82.0	65.0	46.0
"	1898	46.0	50.0	49.0	76.0	76.0	85.0	98.0	92.0	83.0	62.0	50.0	56.0
"	1899	50.0	50.0	47.0	66.0	71.0	83.0	96.0	80.0	83.0	68.0	65.0	50.0
"	1900	58.0	46.0	64.0	77.0	81.0	98.0	94.0	90.0	83.0	72.0	65.0	56.0
Edmonton	1896	46.0	52.0	54.0	68.0	76.0	89.5	91.5	79.0	80.5	75.0	45.5	47.0
"	1897	37.0	38.0	...	72.0	86.0	82.0	83.5	89.0	86.0	77.0	56.0	45.0
"	1898	38.0	43.0	44.0	78.0	81.0	94.0	87.0	87.5	80.0	58.0	51.5	47.5
"	1899	44.5	53.5	39.0	71.0	75.5	81.0	89.0	82.0	77.0	82.0	55.0	53.0
"	1900	48.0	40.0	55.0	78.0	78.0	86.0	82.0	80.0	76.0	68.0	62.0	44.0

LOWEST TEMPERATURES.

STATION	YEAR	JANUARY	FEBRUARY	MARCH	APRIL	MAY	JUNE	JULY	AUGUST	SEPTEMBER	OCTOBER	NOVEMBER	DECEMBER
Regina Qu'Appelle	1896	-40.0	-30.0	-17.0	11.0	31.6	40.5	36.8	83.0	26.0	6.0	-29.8	-29.4
	1897	-33.5	-28.0	...	12.8	19.5	23.0	40.0	34.0	24.6	12.0	-24.6	-30.0
	1898	-16.5	-27.4	-23.0	-8.0	23.5	24.7	34.4	35.4	24.8	16.0	-22.5	-23.0
	1899	-31.5	-42.7	-23.8	-24.0	20.6	37.0	38.0	35.0	24.0	5.2	18.4	-24.4
	1900	-25.5	-36.5	-26.0	17.5	20.0	34.8	39.3	38.0	24.0	20.8	-22.6	-23.3
	1896	-38.0	-20.0	-23.0	10.0	31.5	29.5	36.0	33.0	20.5	6.5	-46.5	-35.0
	1897	-35.0	-34.5	...	14.0	21.5	23.5	38.5	32.0	21.0	9.0	-32.0	-33.0
	1898	-23.5	-23.5	-23.0	-7.0	23.0	25.0	...	35.0	24.0	17.0	-25.0	-23.0
Regina Qu'Appelle	1899	-34.0	-46.0	-30.0	-20.0	17.0	35.0	...	34.0	24.0	...	...	...
	1900	.....	.....	-23.0	12.0	29.0	33.0	37.0	35.0	23.0	17.0	-32.0	-20.0

LOWEST TEMPERATURES.—Continued.

STATION	YEAR	JANUARY	FEBRUARY	MARCH	APRIL	MAY	JUNE	JULY	AUGUST	SEPTEMBER	OCTOBER	NOVEMBER	DECEMBER
Prince Albert	1896	-50.9	-45.1	-22.0	4.9	29.0	30.5	38.5	34.1	123.3	10.6	-34.8	-39.4
	1897	-40.9	-36.4		14.6	24.3	30.6	40.6	33.0	24.8	9.7	-23.5	-34.5
	1898	-31.5	-33.7	-26.5	-12.5	24.3		35.0	36.1	123.5	12.3	-28.7	-37.9
	1899	-42.0	-45.0	-33.0	-17.0	18.5	31.5	40.5	31.5	26.5	15.5	9.3	-34.5
	1900	-39.5	-44.5	-37.0	17.0	23.0	35.7	40.5	33.0	25.0	21.5	-27.5	-25.8
Swift Current	1896	-32.0	-22.0	-6.0	15.6	32.0	40.0	40.0	32.0	28.0	20.9	-30.0	-20.0
	1897	-40.0	-20.0		20.0	36.0	33.4	37.5	38.0	28.0	14.5	-32.0	-30.0
	1898	-12.8	-20.0	-20.0	2.0	26.0	34.0	40.8	41.3	28.0	16.0	-18.0	-19.0
	1899	-33.5	-41.5	-22.5	-5.5	22.3	33.0	44.0	36.5	27.5	12.3	20.0	-15.0
	1900	-16.5	-35.0	-16.0	23.5	28.0	32.0	40.0	39.0	23.0	13.0	-22.5	
Medicine Hat	1896	-35.0	-19.6	-25.0	8.0	31.8	38.5	36.0	38.0	25.0	16.5	-36.0	-23.0
	1897	-50.0	-22.5		20.0	33.0	35.5	45.1	33.8	28.0	10.0	-26.0	-31.0
	1898	-16.0	-25.0	-29.0	10.0	28.0	31.4	44.1	49.1	30.0	14.0	-11.0	-23.0
	1899	-26.0	-45.0	-27.0	-16.0	12.8	39.0	44.7	39.0	32.0			-25.0
	1900	-18.0	-34.9	-16.1	26.8	33.0	37.0	44.1	32.0	17.5	18.5	-31.5	-9.0
Calgary	1896	-34.2	-21.2	-34.2	13.5	22.0	33.5	34.0	36.5	23.0	15.0	-28.8	-18.3
	1897	-37.2	-9.7		18.5	28.5	29.8	39.0	34.5	26.0	13.0	-25.7	-26.0
	1898	-8.0	-20.0	-18.0	4.0	22.0	35.0	38.0	35.5	23.5	15.0	-23.8	-31.0
	1899	-25.0	-40.0	-23.0	-14.0	12.0	34.0	35.0	30.0	32.0	4.0	14.0	-24.0
	1900	-15.0	-27.0	-22.0	21.0	28.0	30.0	36.0	30.0	17.0	11.0	-30.0	-3.0
Edmonton	1896	-36.0	-17.0	-31.0	8.0	30.0	34.0	41.0	41.0	29.0	19.0	-33.0	-22.0
	1897		-13.0		23.0	31.0	31.0	40.0	38.0	30.0	6.0	-27.0	-27.0
	1898	-13.0	-18.0	-17.0	14.0	25.0	34.0	43.0	44.0	32.0	14.0	-19.0	-30.0
	1899	-31.0	-36.0	-16.0	-10.0	15.0	38.0	41.0	37.0	31.0	2.0	16.0	-25.0
	1900	-16.0	-32.0	-17.0	22.0	32.0	33.0	43.0	30.0	20.0	13.0	-29.0	-2.0
Macleod	1896	-46.5	-32.5	-24.0	5.5	27.5	33.0	37.0	53.7	0.2	19.5	-36.5	-27.0
	1897	-43.5	-20.0		20.0	30.0	32.0	39.0	35.0	28.0	10.5	-25.0	-42.5
	1898	-8.0	-29.0	-25.5	11.0	29.0	25.5	40.0	39.0	29.0	16.0	-21.0	-32.0
	1899	-25.0	-41.5	-21.0	-6.0	10.5	35.0	40.0	32.5	32.0	14.0	-11.0	-37.0
	1900	-30.0	-40.0	-20.0	26.0	32.5	37.0	38.0	33.0	12.0	22.0	-16.0	-9.5

MEAN TEMPERATURES.

STATION	YEAR	JANUARY	FEBRUARY	MARCH	APRIL	MAY	JUNE	JULY	AUGUST	SEPTEMBER	OCTOBER	NOVEMBER	DECEMBER
Regina Qu'Appelle	1896	-2.1	12.1	13.2	34.6	51.3	60.9	63.9	59.5	50.1	38.8	0.7	13.6
	1897	1.6	2.7		39.4	54.9	58.5	63.5	62.2	59.6	41.7	11.4	6.2
	1898	8.5	4.7	10.2	35.4	51.0	58.8	64.1	61.7	53.2	23.1	17.4	11.4
	1899	-1.1	-7.7	1.3	32.0	45.9	57.1	64.2	58.9	53.0	36.8	35.5	8.9
	1900	10.7	-5.0	12.4	47.8	57.7	63.1	63.8	62.5	50.7	44.3	14.7	14.2
Prince Albert	1896	-2.5	9.6	12.7	35.2	51.6	61.9	64.8	59.6	48.8	36.8	-0.3	9.4
	1897	0.6	0.2		38.6	54.6	58.7	64.4	62.8	58.1	41.2	11.9	6.5
	1898	6.2	3.2	13.2	34.2	50.3	58.9		63.3	53.9	35.0	20.4	11.3
	1899	-0.2	-8.6	-0.5	30.6	47.0	57.5		59.1	52.2			
	1900			12.2	46.7	56.9	62.6	63.6	62.8	50.3	42.2	-13.5	12.0
Swift Current	1896	-10.1	7.2	11.5	32.7	49.7	58.4	63.7	58.1	48.4	37.7	1.1	8.2
	1897	-1.0	-1.9		42.7	53.6	57.2	61.3	61.5	54.6	39.6	9.8	8.3
	1898	3.4	0.5	10.2	35.7	52.1		63.3	60.0	50.8	33.3	16.6	8.9
	1899	-6.5	-7.2	1.5	31.3	47.0	57.2	62.3	56.1	52.4	36.6	30.3	4.9
	1900	3.1	-7.1	11.4	44.5	54.4	60.0	60.1	58.4	49.3	41.0	13.0	10.0
Prince Albert	1896	-6.3	21.6	20.4	39.1	50.1	62.8	69.2	61.6	50.2	42.7	4.0	23.8
	1897	9.6	10.5		43.3	58.5	61.2	65.5	67.2	58.1	43.7	15.2	14.7
	1898	17.2	12.3	13.4	36.4	52.0	59.8	66.3	65.9	54.4	43.7	22.0	17.7
	1899	-7.1	-2.5	4.9	36.2	47.5	57.9	65.9	59.4	55.0	38.2	39.8	16.8
	1900	21.1	4.2	23.1	48.7	57.5	65.8	66.6	62.9	51.4	43.6	19.8	...

MEAN TEMPERATURES.—Continued.

STATION	YEAR	JANUARY	FEBRUARY	MARCH	APRIL	MAY	JUNE	JULY	AUGUST	SEPTEMBER	OCTOBER	NOVEMBER	DECEMBER
Medicine Hat	1896	9.2	25.3	23.9	40.6	51.2	65.0	71.2	65.2	53.4	45.2	2.0	26.5
	1897	11.5	11.4	....	47.4	62.0	61.5	65.8	69.9	58.8	45.4	15.4	18.0
	1898	19.6	16.0	17.6	41.9	54.8	61.9	69.3	69.4	56.6	40.5	23.2	20.5
	1899	13.0	2.2	8.8	33.3	49.6	60.6	68.1	61.3	59.1	....	....	22.0
	1900	24.6	9.0	23.7	50.5	58.3	67.0	69.0	63.4	53.4	44.9	23.6	31.3
	1896	3.7	21.3	19.3	36.3	44.5	58.5	64.6	59.6	49.3	41.3	2.4	26.1
	1897	12.6	15.9	....	43.7	57.9	57.0	59.2	62.7	52.4	42.2	12.3	18.2
	1898	20.9	14.5	17.8	33.2	49.1	56.4	61.8	62.6	52.3	36.9	21.7	21.4
	1899	14.9	2.4	8.8	33.8	44.4	53.2	60.3	53.7	53.6	36.7	37.1	19.2
	1900	22.1	11.4	28.2	44.1	51.8	57.6	58.2	55.1	47.8	38.1	20.6	27.8
Edmonton Macleod	1896	14.1	32.8	24.8	41.4	51.2	64.9	69.6	63.9	52.2	49.7	4.7	33.0
	1897	....	24.4	46.2	60.2	60.6	65.4	71.3	57.5	47.6	....	17.9	21.8
	1898	28.7	22.2	19.3	43.1	51.2	58.3	69.5	67.2	56.9	40.7	23.2	25.5
	1899	18.6	6.2	14.3	37.4	49.5	57.1	65.2	57.5	57.5	41.4	42.6	21.2
	1900	28.0	15.0	30.6	47.1	55.4	62.4	63.5	59.9	51.8	43.2	25.7	34.2
	1896	3.0	22.0	20.0	35.9	49.3	58.8	64.2	58.0	49.8	42.3	—	0.4
	1897	7.4	12.8	....	43.5	57.3	58.8	59.7	62.4	53.1	44.6	13.0	16.3
	1898	18.1	7.3	19.8	39.9	55.1	59.0	62.9	62.9	52.8	35.5	22.6	23.0
	1899	9.2	2.8	8.5	36.8	47.0	57.0	61.4	56.1	53.2	35.9	32.4	14.4
	1900	17.1	5.5	19.9	46.4	55.7	59.4	59.4	56.1	48.3	40.4	21.7	23.1

TOTAL ANNUAL RAINFALL FROM 1891 TO 1900 INCLUSIVE.

STATION.	1891	1892	1893	1894	1895	1896	1897	1898	1899	1900	Average of Ten Years.	Height above Sea Level in Feet.
Regina	12.39	9.46	4.88	3.90	9.29	15.19	5.97	11.54	14.22	10.95	9.77	1385
Medicine Hat	9.70	7.81	9.08	10.09	11.39	11.21	11.77	15.90	21.17	22.05	13.07	2161
Edmonton	15.63	11.43	12.34	12.27	10.77	9.50	12.16	10.90	20.89	27.81	14.37	2158
Swift Current	17.68	12.18	8.68	6.62	9.50	9.62	12.23	15.25	19.40	13.94	12.51	2430
Qu'Appelle	15.31	11.42	11.25	6.63	11.96	15.46	8.76	21.65	19.27	16.52	13.82	2115
Calgary	8.93	5.47	6.88	8.49	10.76	8.68	15.69	22.33	27.90	18.57	13.37	3389
Prince Albert	8.77	8.76	8.45	5.17	8.88	13.25	11.04	14.46	29.88	22.40	13.10	1402
Battleford	7.41	10.63	9.24	9.79	10.56	8.65	14.09	14.15	18.96	20.41	12.38	1620

— The following statement shows the normal annual rainfall at the above-mentioned points, and also at points in the State of Montana :

N. W. TERRITORIES

Regina	9.77
Medicine Hat	13.07
Edmonton	14.37
Swift Current	12.51
Qu'Appelle	13.82
Calgary	13.37
Prince Albert	13.10
Battleford	12.38

MONTANA

Poplar	12.91
Fort Benton	13.27
Butte	11.01
Billings	14.65
Helena	12.62
Missoula	15.68
Choteau	15.52
Bozeman	17.54

System of Government and Taxation

In addition to the Federal Government at Ottawa, which has jurisdiction over the public domain, Indians and natural resources of the Territories, and administers customs, postal and other national services, there is in the Canadian North-West Territories, as in the Provinces composing the Dominion of Canada, a Legislative Assembly consisting of thirty-one members, which exercises control over all local matters. The Executive Council at present consists of three members, each having a seat in the Legislature.

Government in the Territories is distinctly by the people. Any person who is a British subject, either by birth or naturalization, and who has attained the full age of twenty-one years, has resided in the North-West Territories for at least twelve months, and in the electoral district for at least three months, is entitled to vote, both in Territorial and in Dominion elections.

The public service of the North-West Territories is divided into the following departments: Agriculture, Education, Public Works, Attorney-General's, Secretary of State's and Treasury. The Legislature expends money for public works, administration of justice, education, agricultural societies, encouraging importation of pure-bred stock, agricultural experimental work, collection of statistics, farmers' institute work, destruction of noxious weeds and animals, aid to public hospitals, and for the care of deaf and dumb and incurable patients.

No expensive system of municipal or county organization has been introduced into the Canadian North-West. There is instead a simple and economical law in operation, known as The Local Improvement Ordinance, under which districts of varying area are organized. Each quarter section of land, consisting of 160 acres, owned or occupied, is taxed to the extent of \$2.00 to \$2.50 per annum. The only other tax levied is that for schools. The total tax for all purposes on a quarter section seldom exceeds \$7.00 to \$8.00 per annum, and in those portions of the country where the settlers have not yet decided to form school districts the total taxation per quarter section is only from \$2.00 to \$2.50 per annum.

Educational Facilities

The public school system established in the Territories is well abreast of the times. Its management is vested in one of the Ministers of the Government assisted by an Educational Council of five appointed members. The organization of school districts is optional with the settlers. Districts formed cannot exceed five miles in length or breadth and must contain at least four actual residents and twelve children between the ages of five and sixteen. In almost every locality where these

conditions exist schools have sprung up. At present there are some six hundred and fifty districts in existence. It is expected that between seventy-five and one hundred new districts will be formed during the year 1901. The cost of maintaining schools is moderate owing to the liberal assistance given by the Government. Taxes vary from \$3.00 to \$8.00 per quarter section, while the Government grants paid to each yearly school amount to from \$300 to \$350. Each teacher employed must have a certificate of a recognized standard of education issued by the State, and, in addition, must present evidence of having received Normal training. A thorough system of inspection has been inaugurated, each school being usually visited twice during the year. The Inspectors are not elected but are appointed by the Government on account of their special aptitude for the duties they have to perform. In the schools of the larger towns the higher branches of study are taught and pupils are prepared for University matriculation and Teachers' certificates. Uniform State examinations for Teachers' certificates are held annually at convenient points. The people of the Territories take a keen interest in their schools. The Government has always given the school problem its first consideration, with the result that a system has been established which leading authorities admit provides as practical an education as can be obtained in the older Provinces of Canada or the United States.

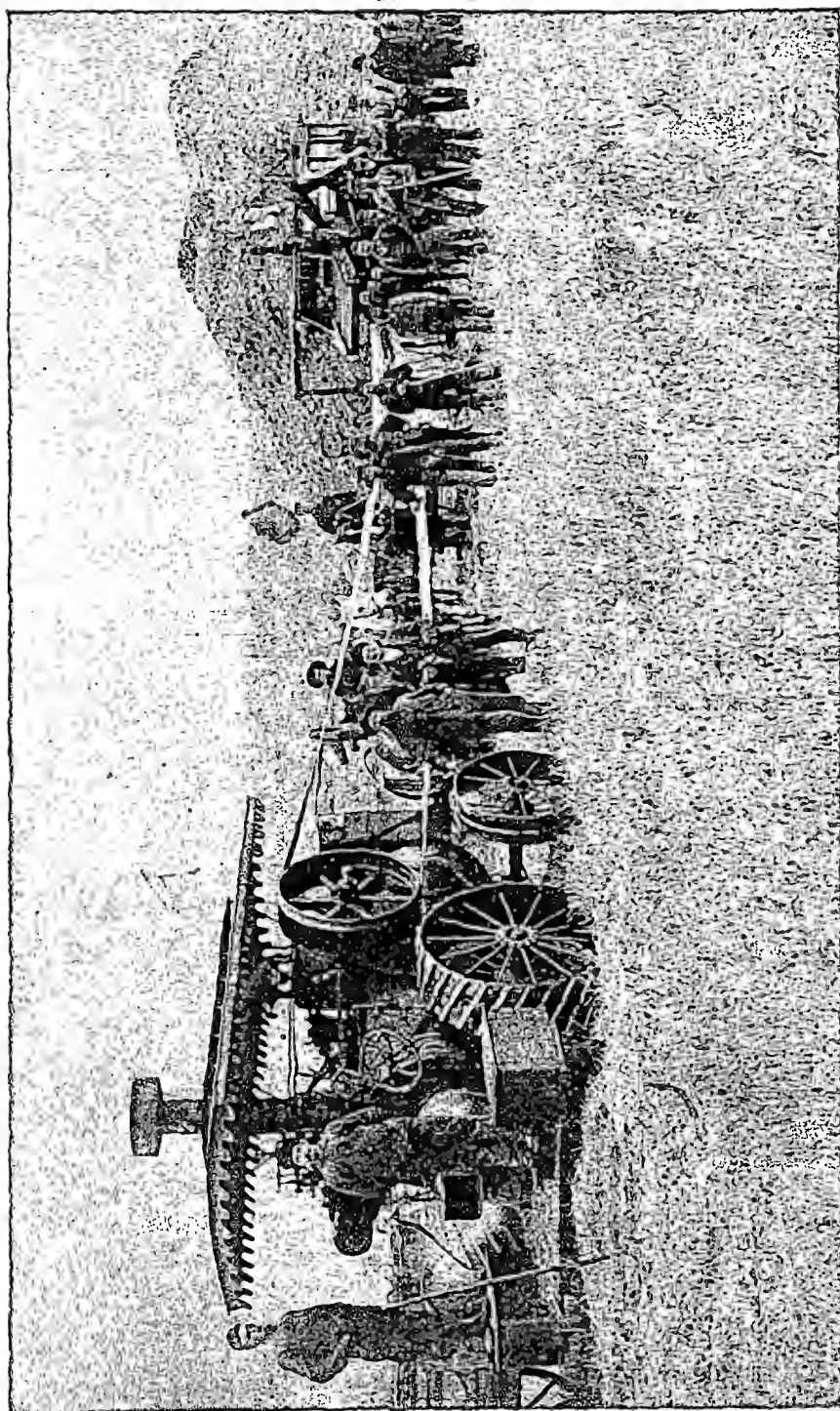
Summed up, the leading features of the Territorial system are:—

1. Government control, freed from political interference.
2. Liberal Government assistance.
3. Comparatively light taxation.
4. A very practical course of studies.
5. Thorough supervision by competent inspectors.
6. Trained teachers and uniform State examinations.

GENERAL DESCRIPTION

Assiniboia

The Provisional District of Assiniboia lies between the Province of Manitoba and the District of Alberta and south of the District of Saskatchewan, and extends north from the International boundary to the 52nd parallel of latitude, containing an area of about fifty-eight million acres. It contains two great natural divisions—Eastern and Western Assiniboia—each of which has its own peculiar characteristics—the former being essentially a wheat-growing and mixed farming country, while the latter is especially adapted for ranching.



The Thresher

Eastern Assiniboia

This is known as the park country of the Canadian North-West. The general aspect of the country is rolling prairie, dotted over with clumps of trees usually found bordering lakes, streams and meadows; in the hollows grow the heavy luxuriant grasses where the farmer obtains his supply of winter hay. The principal grains grown are wheat and oats. All kinds of roots, too, are a sure crop. The soil is so rich that no fertilizers are necessary, so that in this direction a large amount of time and money is saved. Nowhere can farming be done more easily, and nowhere can the frugal, earnest and industrious man start on a smaller capital.

Eastern Assiniboia is *par excellence* the wheat-growing district of the Canadian North-West, in fact, its fame is travelling abroad and it is gradually becoming known as one of the greatest wheat-producing sections of the American continent. The following are the reasons for the reputation of this district for wheat raising:—

1. It has a soil particularly rich in the food required for the wheat plant.
2. A climate under which the plant comes to maturity with great rapidity.
3. On account of its northern latitude, it receives an abundance of sunshine during the period of growth.
4. Absence of rust due to dryness of climate.
5. Absence of insect foes.
6. Absence of noxious weeds.

These conditions are especially favourable to the growth of the hard, flinty wheat of the Scotch Fyfe variety, for which this district is famous, so highly prized by millers all the world over, giving it a value of from 10c. to 25c. a bushel over the softer varieties grown in Europe, the older parts of Canada and the United States.

The Moosomin District is included in the country lying between the Manitoba boundary on the east, the lovely valley of the Qu'Appelle River on the north, the Pipestone Creek, a perfect paradise for cattle, on the south, and the second meridian on the west. The Qu'Appelle District is that section which lies immediately west of the Moosomin District to the height of land round to the Beaver Hills and south almost to the International boundary line. Included in this area are the fertile Pheasant Plains. The subsoil is generally sandy clay, covered with about 12 to 18 inches of black vegetable mould, which, after the second ploughing, makes a fine seed bed, easy to work, and of the most productive nature. Generally speaking, these remarks apply to all the eastern part of the district. The Beaver Hills and the Touchwood Hills in the northern part are especially well adapted for stock raising. The stretch of country in the south-eastern portion of the district is attracting a large num-

ber of settlers. Here there are over forty townships practically unsettled and available for homestead entry. A portion of this area is rolling prairie, suitable for mixed farming, and the remainder is unexcelled wheat land. Water is plentiful at a depth of from 10 to 20 feet, and timber is abundant in the Moose Mountains, coal also being easily and cheaply obtainable at the Souris coal fields. Those who have settled there have erected substantial buildings, have plenty of stock, and many of them have good bank accounts. There has never been a sheriff's or bailiff's sale in this part of Eastern Assiniboia. Between 500 and 600 farmers located in this section in 1899, and there is room for 5,000 more homesteaders, while railway lands are cheap and plentiful. The extension of the Pipestone branch of the Canadian Pacific Railway, which has been completed to Arcola during the present year, renders readily accessible this large and desirable territory.

Eastern Assiniboia offers an opening to the man of limited means, if he is prepared to work and exercise economy. After a year or two of hard work he ought to find himself in possession of a home all his own, free from the harrassing conditions of a rented or mortgaged farm.

Western Assiniboia

The easterly portion of this section very much resembles Eastern Assiniboia and occupies already a prominent place as a wheat-producing district. With Regina and Moose Jaw as their centres, are two large areas, 50 by 90 miles, admirably suited for mixed farming. From Swift Current Creek west, the region is fully equal to any district in the west as a stock country. It is everywhere thickly covered with a good growth of nutritious grasses—the grass is usually the short crisp variety, known as "buffalo grass," which becomes to all appearances dry about mid-summer, but still remains green and growing at the roots and forms excellent pasture both in winter and summer. The rapidity with which poor, emaciated animals brought from the east get sleek and fat on the buffalo grass of the plains is amazing. There is an abundance of fuel in the coal seams that are exposed in many of the valleys. The climate of this district is the finest on the continent of America. The number of hours of sunshine during the year is marvellous and renders out-of-door work pleasant and convenient at any season. The tenderest garden plants, such as tomatoes, corn, etc., are grown successfully in the western portion of this district almost every year. The snowfall is light, the climate is tempered by the Chinook winds, and water and shelter are everywhere abundant.

The two most important stock centres in Western Assiniboia are Maple Creek and Medicine Hat, both situated north of the famous Cypress Hills, which may be dimly seen from the railway. These hills are especially adapted for stock raising, and as the country is too rough and

broken to make general farming on an extensive scale a certainty, the grass land that nature has so bountifully provided will not likely be disturbed by the plough, thus giving to the farmer on the plains adjoining never-failing hay meadows and unlimited pasture ground for his stock.

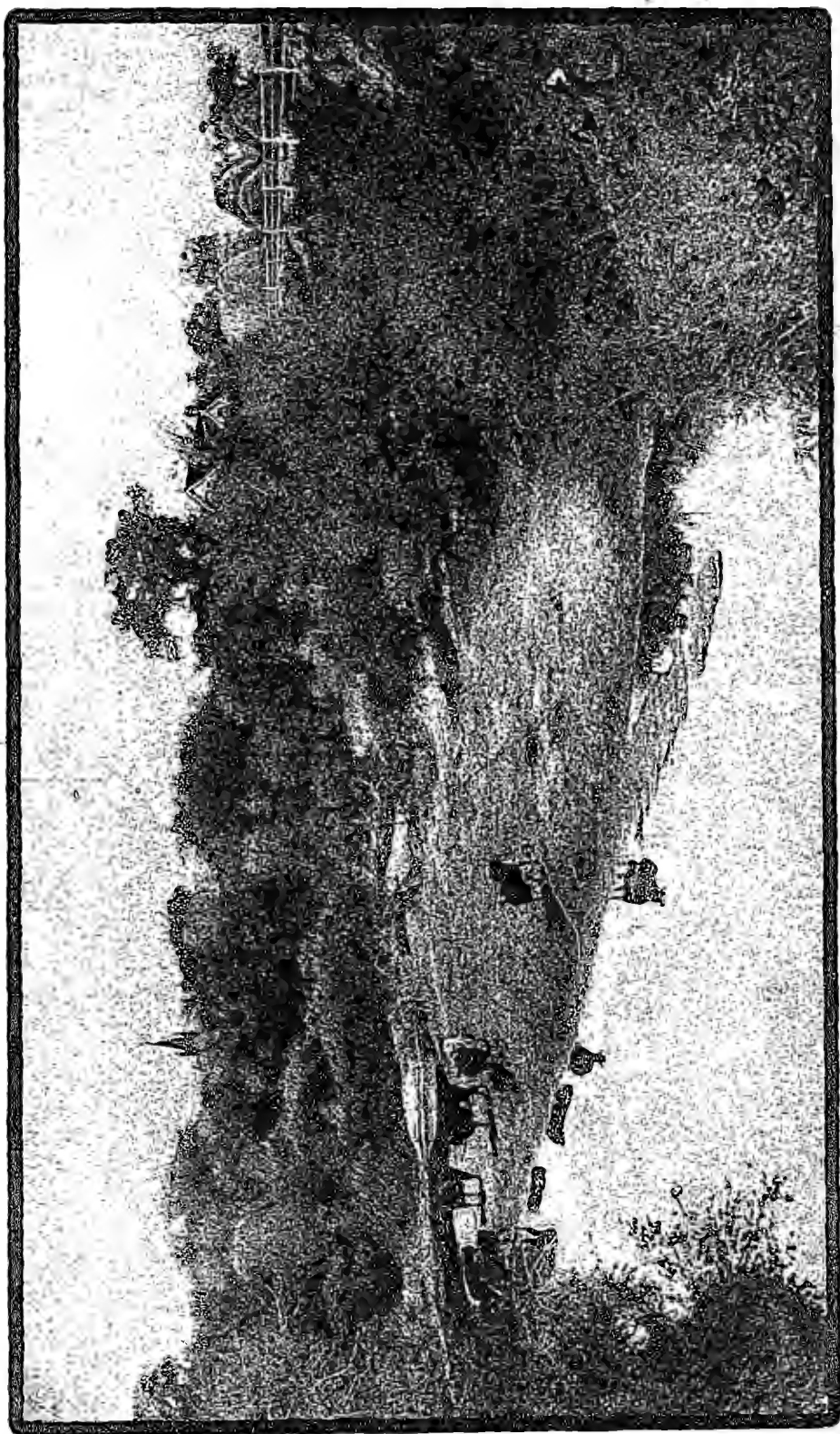
Irrigation is quite extensively practised in the Maple Creek country. An abundant supply of moisture, coupled with the favourable climatic conditions, have produced crop results in this district difficult to equal anywhere. The Maple Creek range has for years enjoyed the reputation of being the most profitable in the Territories. It is a fact, beyond any doubt, that nearly all the men who settled there years ago and engaged in stock raising with limited means have now accumulated small fortunes.

The ranching country tributary to Medicine Hat covers an area of some 150 miles in width by 300 miles from north to south. A very important feature in connection with ranching is an abundant supply of running water, and certainly this district has been generously endowed in this respect. The district is traversed by the South Saskatchewan, the Bow and Red Deer Rivers, also by Ross, Seven Persons, Gros Ventre, Plume and Bull Head Creeks on the northern watershed, and Willow and Battle Creeks and Milk River to the south. The district is also dotted with numerous lakes and springs. Soil and climatic conditions here are largely identical with those prevailing in the Maple Creek district.

Parties in search of land for stock raising in Western Assiniboia are advised to examine the country south-west of Swift Current Station, along the Swift Current Creek, south and west of Gull Lake, south of Maple Creek, the valley of Mackay Creek that flows north from the hills and south of Irvine and Dunmore, where connection is again made with the Canadian Pacific Railway system. The country along the Red Deer River, north of the railway, is also largely vacant, although a considerable number of stockmen have taken up locations there during the last year or two.

Chief Towns in Assiniboia

The principal town of Assiniboia is Regina, the provisional capital of the North-West Territories. It is the market town for a large, well-settled and prosperous wheat-growing district. There are many fine stores, flour mill, elevators, electric light plant, and a complete drainage system. Here is situated the legislative buildings of the North-West Government, the official residence of the Lieutenant-Governor and the headquarters of the celebrated force known as the North-West Mounted Police, whose duties are the maintenance of law and order throughout the Territories. Among other public offices situated here are a court house, jail, land office, registry office, Indian Industrial School. All important buildings are of brick. There are churches representing all the



River Scene, Assiniboia

leading denominations, a fine hospital, and two large and handsome public schools, in one of which normal school sessions are held. The population is about 2,000. A branch railroad runs north from this point, crossing the Qu'Appelle Valley, to Prince Albert on the north branch of the Saskatchewan, the principal town of the provisional district of Saskatchewan. Regina has three newspapers and two chartered banks.

Moosomin, which, with the exception of Fleming, is the most easterly point in the Territories on the main line of the Canadian Pacific Railway, is a charming town, prettily situated among poplar bluffs. It is the centre of a fine district in which all kinds of farming are successfully carried on. There are two newspaper offices and many fine public buildings and stores, including a court house and bank.

Broadview is a divisional point on the railway. Near it is situated a large Indian reservation. Grenfell, Whitewood, Wolseley and Sintaluta are thriving towns, the business centres of extensive wheat-growing districts. Qu'Appelle Station is situated among poplar woods and is the shipping point for the cattle and horse-ranching country in the Touchwood and File Hills districts. Eighteen miles north of this lies the village of Fort Qu'Appelle, situated in a lovely piece of country and in close proximity to the Qu'Appelle Lakes, which are becoming a favourite summer camping ground. During the shooting season these lakes teem with wild fowl.

Indian Head may be regarded as the leading wheat town of the Territories, the country tributary being apparently particularly adapted to the growing of this cereal. Seven large grain elevators and a mill are situated here and a large amount of business is done in the town, which is rapidly increasing in size and importance. One of the features of the locality is the Agricultural Experimental Farm maintained by the Dominion Government, which is a most valuable institution to the farmers throughout the eastern portion of the Territories.

Yorkton and Saltcoats are the leading towns in the north-eastern portion of the Territories, where mixed farming is largely carried on. The cattle industry is assuming large proportions in this district, the shipments from Yorkton having increased from 3,895 head in 1899 to 5,760 head in 1900.

Gainsboro, Carievale, Carnduff, Oxbow and Alameda are the principal points on the south-eastern branch of the Canadian Pacific Railway. At Estevan this branch makes connection with the Soo Line. Estevan is the shipping point for the coal mines of the Souris coal fields, which form part of the immense lignite deposits of the Territories. This coal is rapidly improving in quality, and as it is moderate in price a continually increasing market is being found for it.

Moose Jaw is an important railway centre on the main line situated about 42 miles west of Regina, and has a population of about 1,800. This is the northern terminus of the Soo Railway, which affords direct communication with United States points by way of St. Paul. A feature

of Moose Jaw is the beautiful gardens maintained by the railway company. About 25 miles north lies Buffalo Lake, in the Valley of the Qu'Appelle, which in the fall is a perfect sportsman's paradise and attracts shooting parties from the eastern Provinces of Canada as well as from the United States.

On the Soo Line are two promising villages, Weyburn and Yellow Grass, which, within the last two or three years, have been the objective points of a very extensive immigration. North of Regina, on the Prince Albert branch, is Lumsden, which is now an important wheat centre, possessing four elevators.

Further west on the main line is Maple Creek, the first town of importance in the stock country proper, which extends west to the foot of the Rockies.

Medicine Hat, the principal town of Western Assiniboia, promises to become the leading manufacturing town of the West. It is situated on the south branch of the mighty Saskatchewan River. It has a complete waterworks system, is lighted and heated by natural gas. A fine general hospital is located here. The town is a railway divisional point. This town is the north-easterly terminus of the Crow's Nest Pass Railway, which has been in operation for several years and is now completed to Kootenay Lake, where steamer connection is for the present made with the Canadian Pacific Railway system in Southern British Columbia. By the use of car ferries, freight for these mining regions reaches its destination without breaking bulk. Immense deposits of coal, which is particularly adapted for cooking, were made available by the construction of this railway.

Saskatchewan

Saskatchewan, lying north of Assiniboia, is the largest and most central of the three provisional districts, which were carved out of the Territories by the Dominion Parliament in 1882. Its area is 114,000 square miles. In shape it is an oblong parallelogram, which extends from Nelson River, Lake Winnipeg, and the western boundary of Manitoba, on the east, to the 112th degree of west longitude on the west, and lies between the 52nd and 55th parallels of north latitude. It is almost centrally divided by the main Saskatchewan River, which is altogether within the district, and by its principal branch, the North Saskatchewan, most of whose navigable length lies within its boundaries. It includes in the south a small proportion of the great plains, and in its general superficial features may be described as a mixed prairie and wooded region, abounding in water and natural hay, and well suited by climate and soil for the raising of wheat, horned cattle and sheep. It may, in fact, be described as the Ontario of the North-West, its prairies corresponding to the cleared portions of that Province, whilst its timber areas to the north give it a like value in the industrial feature. It is the

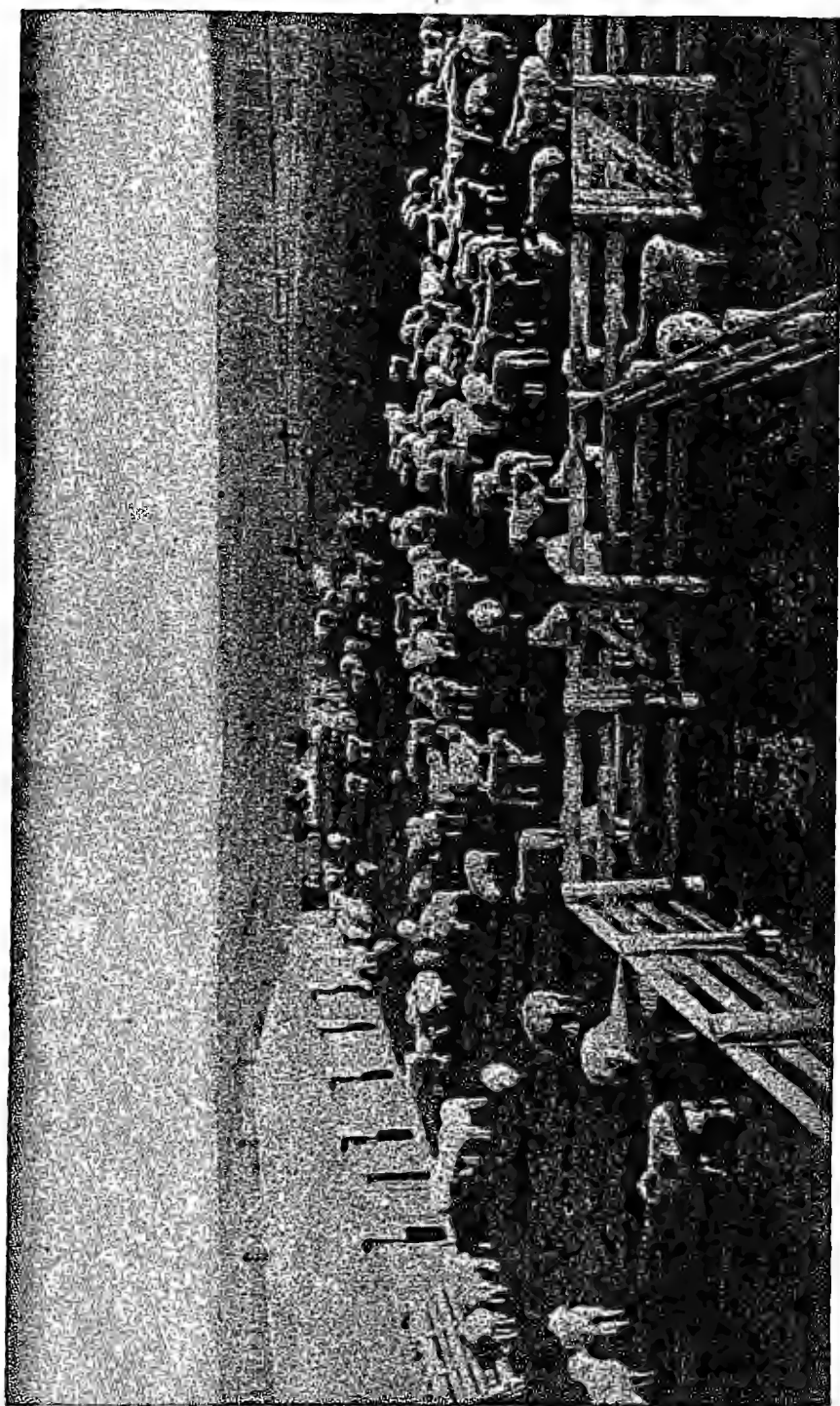
wheat-growing district, too, which lies nearest to Hudson's Bay.

Settlement is at present chiefly in the Prince Albert, Rosthern, Duck Lake, Shell River, Batoche, Stony Creek, Carlton, Carrot River, Puckahn, Birch Hills, The Forks, St. Laurent, St. Louis de Langevin, Doremy and the Battleford districts, in nearly all of which there is a great area of the best land open for free selection to homesteaders, i. e., settlers who take up land to cultivate and live upon it. In the Battleford district stock raising is gradually becoming the predominant industry. The entire country is peopled with Canadians, Americans, Germans, Scotch, English and old country French. In every settlement there are churches and good schools. In a great measure, that which may be said of one district, applies equally to the others. The crops consist of wheat, oats, barley, flax and potatoes. Turnips and all kinds of vegetables are raised successfully. Oats are now being grown extensively, there being a demand for this cereal in the district, and there has never been a total failure of crops. Settlers enjoy a good steady home market, in which they realize good prices for their products. The district is well supplied with good roads, and they are easily kept open, winter and summer. Wild fruits of nearly every variety—strawberry, raspberry, gooseberry, blueberry, high bush cranberry, black currants, etc.—grow in profusion, and small game is plentiful.

The country is remarkably well adapted for stock raising, and large shipments of cattle and sheep are made annually in gradually increasing numbers. In fact, the better this district becomes known, the more its fitness for that purpose becomes apparent. Immense tracts of hay land are not only to be found south of the Saskatchewan, capable of sustaining countless herds, but on the north side there are areas of rich pasturage. Fresh water is everywhere abundant, and the country, being more or less wooded, affords ample protection to the stock, which, however, must be fed, and should be sheltered from three to four months every winter. For bands of from 300 to 500 head it is unsurpassed. Horses winter out well, and can, therefore, be kept in large bands.

Chief Towns of Saskatchewan

Prince Albert, with a population of over 2,000, is the chief town of this Territorial division. It is beautifully situated on the south bank of the North Saskatchewan and is in the centre of an extensive farming district. A branch line runs between it and Regina. It is also the prospective terminus of the north-western branch of the Canadian Pacific Railway, running from Portage la Prairie in Manitoba. The Canadian Northern road, running from the same place, is also being built towards it. The town was incorporated in 1886, is lighted by electricity, and is well supplied with stores, churches, schools, three saw mills, two large grist mills, with a capacity of 100 barrels per day each, two large brew-



Sheep Corrals

eries, newspapers, etc. An evaporated vegetable factory was started in 1897, and affords a good market for garden stuff. It is a divisional centre of the Mounted Police.

Battleford (population about 600) is another well-situated town on the delta of the Battle River, west of Prince Albert, which has a saw mill, police post, Indian Industrial School, good hotels, etc. It is in the centre of a good cattle country.

Duck Lake, on the railway, 40 miles from Prince Albert, is a thriving town, being the centre of a good agricultural district. It has a grain elevator and a grist mill.

Rosthern is a new town, at which two grain elevators and roller mills have been erected.

Saskatoon is an older place on the line of railway from which the Battleford district is reached. A large creamery is operated at that point.

Alberta

The District of Alberta, the great stock raising, dairy farming, agricultural and mineral country, situated at the base of the Rocky Mountains, embraces an area almost as large as that of England, Scotland and Ireland. It offers rare inducements to those who contemplate seeking new homes. The practical farmer and stockman, as well as the capitalist, tourist and health-seeker will find in Alberta a country possessing all the essentials for profitable investment of labour and capital, enjoyment of sport and recuperation of health. Although but yet in its infant years, the fame of Alberta has extended to many remote lands, and the inhabitants of Alberta are cosmopolitan in every sense. Many who have come out with the intention of making only a brief stay, have found themselves attracted by its many and varied charms and have decided to remain permanently.

But little was known or heard of the country at the base of the Rocky Mountains, now designated Alberta, until the advent of the Canadian Pacific Railway in 1883. Since then steady progress has been the watchword. And the rapid strides of advancement made in developing the ranching and mineral interests of the district are simply astonishing. Up to 1883 Alberta had no direct communication with Manitoba or Eastern Canada. The postal service was through the United States. American money was in circulation, and all the necessary supplies for consumption and wear came overland from Fort Benson. The construction of the Canadian Pacific Railway ushered in a new era, and the plain and valley re-echoed to the hum of industry.

Alberta is bounded on the north by the Provisional District of Athabasca, on the south by the State of Montana, on the east by the District of Assiniboia, and on the west by the summit of the Rocky Mountains and the Province of British Columbia. A length of some 300 miles from

east to west and 500 miles from north to south, it includes in its 107,700 square miles every variety of forest and stream, grazing and agricultural lands, minerals and oil. In it are comprised some 45,000,000 of acres of the most fertile soil on the continent and some of America's largest and best deposits of coal, metals and petroleum.

The district may roughly be divided into two great sections—Northern Alberta, which embraces all that portion lying north of township 35, and Southern Alberta, comprising the remainder. Northern Alberta is specially adapted to farming with stock raising as an adjunct, while Southern Alberta is at present chiefly devoted to stock raising, considerable farming being, however, done, largely under irrigation.

Northern Alberta

The town of Edmonton, which is about the centre of Northern Alberta, is in latitude 53 deg. 29 min. north, and longitude 113 deg. 49 min. west. It is, therefore, situated as far south as Dublin in Ireland, Liverpool and York in England, Hamburg in Germany, further south than any part of Scotland, Denmark, Norway or Sweden, and 455 miles further south than St. Petersburg, the capital of Russia.

The scenery of Northern Alberta is of varied beauty. No stern, rugged and awful mountains, nor long, dead monotony of flat, treeless prairie, strain the vision here. Level and rolling prairie, clad in grass and flowers, dotted with groves of aspen, poplar and spruce, delight the eye. Lakes and ponds reflect the bright blue skies above, and the deep and magnificent valleys of the great Saskatchewan and other smaller, but not less beautiful, water courses lend boldness to the landscape. Not only when in verdure clad is the country lovely, for the white raiments of winter lend to the prospect a new and additional charm.

Within the borders of Northern Alberta is a practically illimitable area of the most fertile land, well timbered and well watered. The district has a clear, equable and healthful climate, which makes it pleasant to live in. The surface of the country is gently undulating, and through the centre of the district the Saskatchewan River flows in a bed 200 feet below the level. Wood and prairie alternate irregularly. In some parts there are large plains free from timber and in others great areas of woods composed of large trees. The soil consists of a layer of from one to three feet of black vegetable mould, with little or no mixture of sand or gravel, bearing a growth of wild vegetation of a luxuriance seen in no other part of the Territories, and indeed seldom seen anywhere outside of the tropics. It is peculiar to this section of the country that the black mould is deeper on its knolls and ridges than in the hollows. With a soil of such depth and fertility, it is not wonderful that in good seasons a yield of oats of 100 to 114 weighed bushels to the acre has not been uncommon. Barley will readily yield 60 bushels and wheat

over 40, and potatoes of from two to three pounds weight are not a rarity. Live stock of all kinds is raised extensively, including horses of all grades, from heavy draught to Indian ponies, horned cattle, sheep, pigs and poultry. Native horses do well without stabling all the year round.

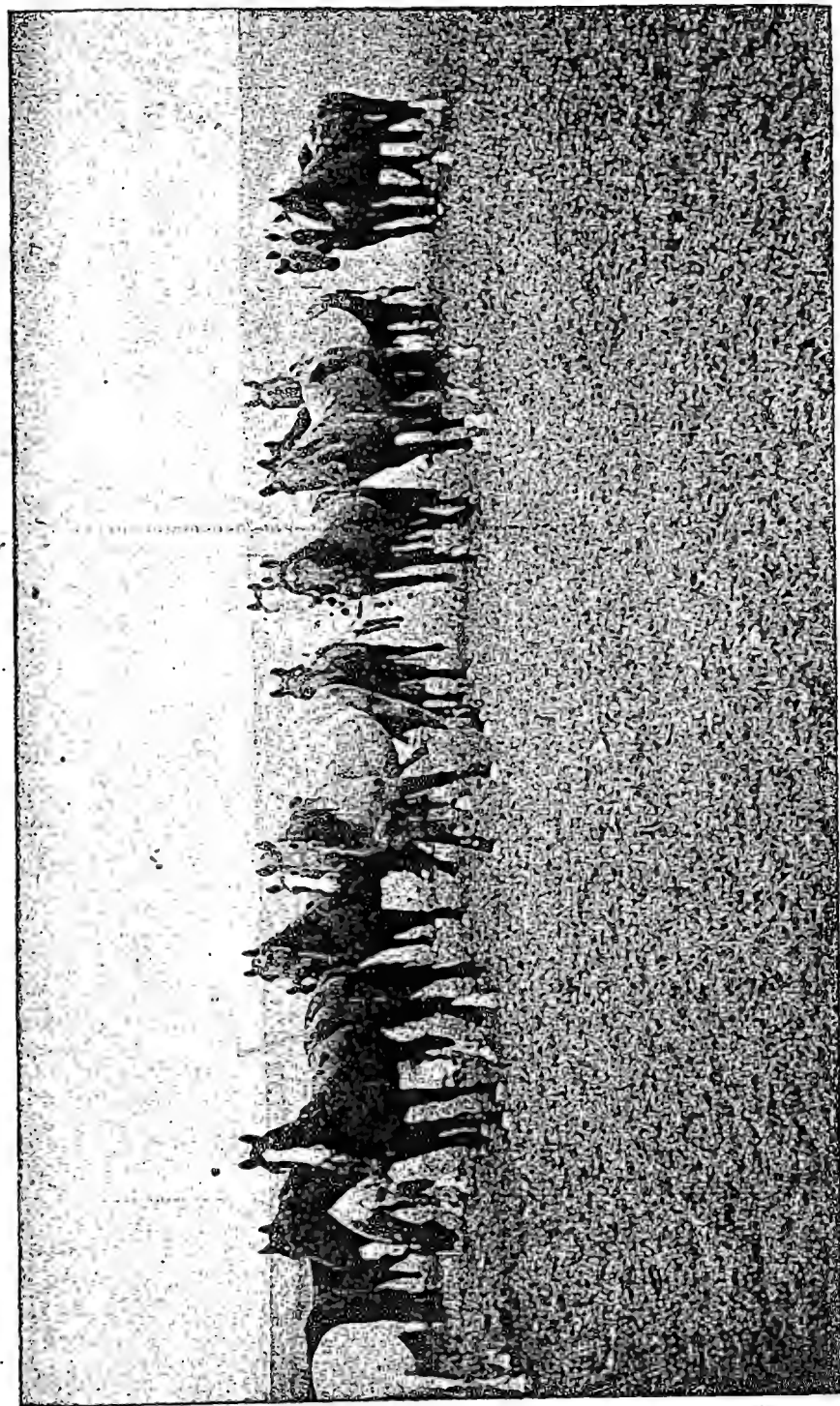
Coal of excellent quality is found throughout the whole district, being exposed on the cut banks of the Saskatchewan, Sturgeon, White Mud and other streams in abundance, and is procurable at from 60 cents to 75 cents a load by the settler hauling it from the mine himself, and is delivered in the towns at from \$1.50 to \$2.50 per ton. Settlers can supply themselves by paying a fee ranging from 10 cents to 20 cents a ton in some localities. There is plenty of wood for building material, and fuel in almost every part of the district. Gold is found in the bars and benches of the Saskatchewan, Macleod, Athabasca, Smoky and other rivers in small but paying quantities, and some settlers after seeding, when the water is low, turn miners and make from \$1.50 to \$4.00 per day.

Whilst the Calgary & Edmonton branch of the Canadian Pacific Company's transcontinental railway is that which now connects the district with the commerce of the world, it is not the only commercial route for the exports of the district. Starting at the end of the Edmonton and Athabasca waggon road (90 miles long), the navigable waters of the great Mackenzie basin flow north for 2,000 miles to the Arctic Ocean. On this immense route on which steamboats ply, and its endless tributaries, there exists a large and growing demand for agricultural products in exchange for the rich furs and peltries of this great fur preserve of Canada. Upwards of \$100,000 worth of these furs are annually marketed in Edmonton, and this sum does not include the much larger collection of the Hudson's Bay Company, whose posts still practically control the trade of that great wilderness.

On account of its agricultural resources and its ready markets therefore, by its gold and coal, by its climate and beauty, by its geographical position at which so many important natural routes converge, Northern Alberta attracted settlers, who had a continent to choose from, even before the advent of railways.

Southern Alberta

Rolling eastward from the Rocky Mountains, the foothills extend for some 20 miles before they merge gradually into the undulations of the vast prairie plateau of Southern Alberta. This plateau is the country of the great cattle and horse ranches, the finest region for stock raising on the whole continent, carpeted as it is, over all its extent, with thick and luxuriant grasses, comprising numerous species and varieties and including the well-known "buffalo" and "bunch" grasses, which, once the favourite food of the buffalo, are now as eagerly sought by the



On Circle Ranch, Southern Alberta

cattle that have succeeded the buffalo in what was for ages their favourite grazing ground. The climate is so mild that the stock need no shelter, summer or winter. The whole region is marked by an equable temperature, with freedom from rapid and extreme fluctuations in the growing season. The soil is fertile and deep, varying from a rich sandy to a clay loam, and is thoroughly adapted to the growing of all classes of cereals, cultivated grasses and vegetables.

The lightness of the rainfall in some years has hitherto been the sole and only drawback which has prevented the realization of the immense possibilities of the richly fertile soil, the mild and equable climate, and the markets for its products afforded by the rapidly developing mining regions of East and West Kootenay. Soil, climate, location, all these have been calling together for the magical touch of intelligent human enterprise and industry to supply the only thing needed, that is to say, water, which is now available in great abundance. The broad plains of Southern Alberta, rich in the fertility of the soil, are watered now by a large number of irrigation ditches and canals, and the occasional lightness of the rainfall thus stands no longer in the way of this great district becoming a land teeming with prosperous farmers.

On this vast grassy expanse of prairie, stretching away, sometimes in a smooth floor extending for league after league, oftenest with its surface gently undulating, swell after swell to the horizon, some 200,000 head of cattle and large bands of horses and sheep run at large both summer and winter. The abundant, luxuriant grasses are highly nutritious, and they cure on the stem, the cattle being knee-deep in hay all through the winter, and April finding them rolling in fat on the ranges. Winter rarely sets in before the end of December and lasts some ten weeks, the light snowfalls soon disappearing before the prevalent chinook winds.

Chief Towns

Calgary is a bright and busy city with a population of about 5,000, which is rapidly increasing. It is situated at the confluence of the Bow and Elbow Rivers, about 70 miles east of the Rocky Mountains. It is the centre of the northern ranching districts of Southern Alberta, and supplies many of the smaller mining towns to the west. It is built principally of sandstone, and is at the junction of the Calgary & Edmonton branches with the main line of the Canadian Pacific Railway. It is an important station of the Mounted Police, and in a variety of ways does a large and increasing business. It has waterworks, electric light, several banks, first-class hotels, grain elevator, flour mill, brewery, several churches, two large hospitals, public and private schools, creamery, extensive abattoir, cold storage and excellent stores. Some four miles south of Calgary is situated the agricultural experimental station, under irrigation, maintained by the Territorial Government.

Edmonton, on the north bank of the Saskatchewan, is the market town for the farmers, traders, miners, etc., on the north side of the Saskatchewan, and for the trade of the great Mackenzie basin, and, like Calgary, is an outfitting place for those taking the inland route to the Peace River and other gold-bearing streams in the Rocky Mountains. It is a prosperous town with a population of 3,000, is lighted by electricity and has all the modern adjuncts of thriving towns. Edmonton has four branches of chartered banks, two flour mills, planing factory, pork packing factory, two breweries, two brick-yards, six churches, two hospitals, four newspapers, public schools, and every branch of business is represented. There are five coal mines near the town.

Strathcona (formerly South Edmonton), on the south bank of the Saskatchewan (population 1,250), and the present northern terminus of the Calgary & Edmonton Railway, is another rising centre, where good hotel accommodation, stores, creamery, flour and oatmeal mills, tannery, banks, four grain elevators, carriage, foundry and machine shops, and pump factory, etc., are established. It has several churches and a public school.

Fort Saskatchewan, 20 miles east of Edmonton, is the headquarters for the Mounted Police in that district, and the distributing point for the Beaver Hills and Vermillion region and St. Albert, 9 miles north-east of Edmonton, is the site of the Roman Catholic Mission.

Leduc, 18 miles south of Edmonton, on Leduc Lake, is the centre of one of the most prosperous and well-settled farming districts of Alberta. It has stores, churches, two grain elevators, etc., and its growth during 1899 was phenomenal.

Wetaskiwin is the busiest town between Edmonton and Calgary, and possesses some good stores, creamery, grain elevator, hotels, etc. It is the market for the Beaver Lake and Battle River settlements.

Ponoka, between Wetaskiwin and Lacombe, is the centre of a new settlement which attracted a large number of settlers during the past year.

Lacombe is 20 miles north of Red Deer in the centre of a rich and well-settled farming country, and is the market town for the Buffalo Lake district. It has a saw and a grist mill, grain houses, creamery, etc.

Red Deer, on the river of the same name, half-way between Calgary and Edmonton, is in the centre of a fine stock country, there being several large ranches in the vicinity.

Innisfail is a prettily situated and very prosperous town, 76 miles north of Calgary, with several stores, hotels, creamery and a grist mill.

Olds is a rising town, 55 miles north of Calgary, around which there is a well-settled country.

Okotoks and High River are centres of a large cattle range, from which extensive shipments are made.

Macleod (population 1,200), on Old Man's River, at the southern terminus of the Calgary & Edmonton Railway, and an important station on the Crow's Nest Pass Railway Line, is the chief centre of business

and headquarters for the great ranching industry of Southern Alberta.

Pincher Creek, in the foothills of the Rockies, is a thriving village of about 250 population, in the centre of an excellent stock country.

Lethbridge (population 2,500), on the Crow's Nest Line of the C. P. R., situated about 30 miles east of Macleod, is a coal mining town doing a good business, with large stores and several public buildings. With the construction of very extensive irrigation works to the west and south of Lethbridge, a large area of excellent land, tributary to the town, has become available for settlement, and is rapidly being disposed of to actual settlers. This is an important coal mining centre, over five hundred hands being employed in connection with the Galt mines. Practically the whole of Assiniboia and Southern Alberta is supplied with soft coal from this source.

Cardston, on Lee's Creek, 15 miles from the boundary, is the centre of a well-settled and prosperous district.

Banff is a health resort of world-wide reputation, with several warm sulphur springs. Immediately to the east are Anthracite and Canmore, both important coal mining towns. At the former are situated the famous Canadian Anthracite coal mines.

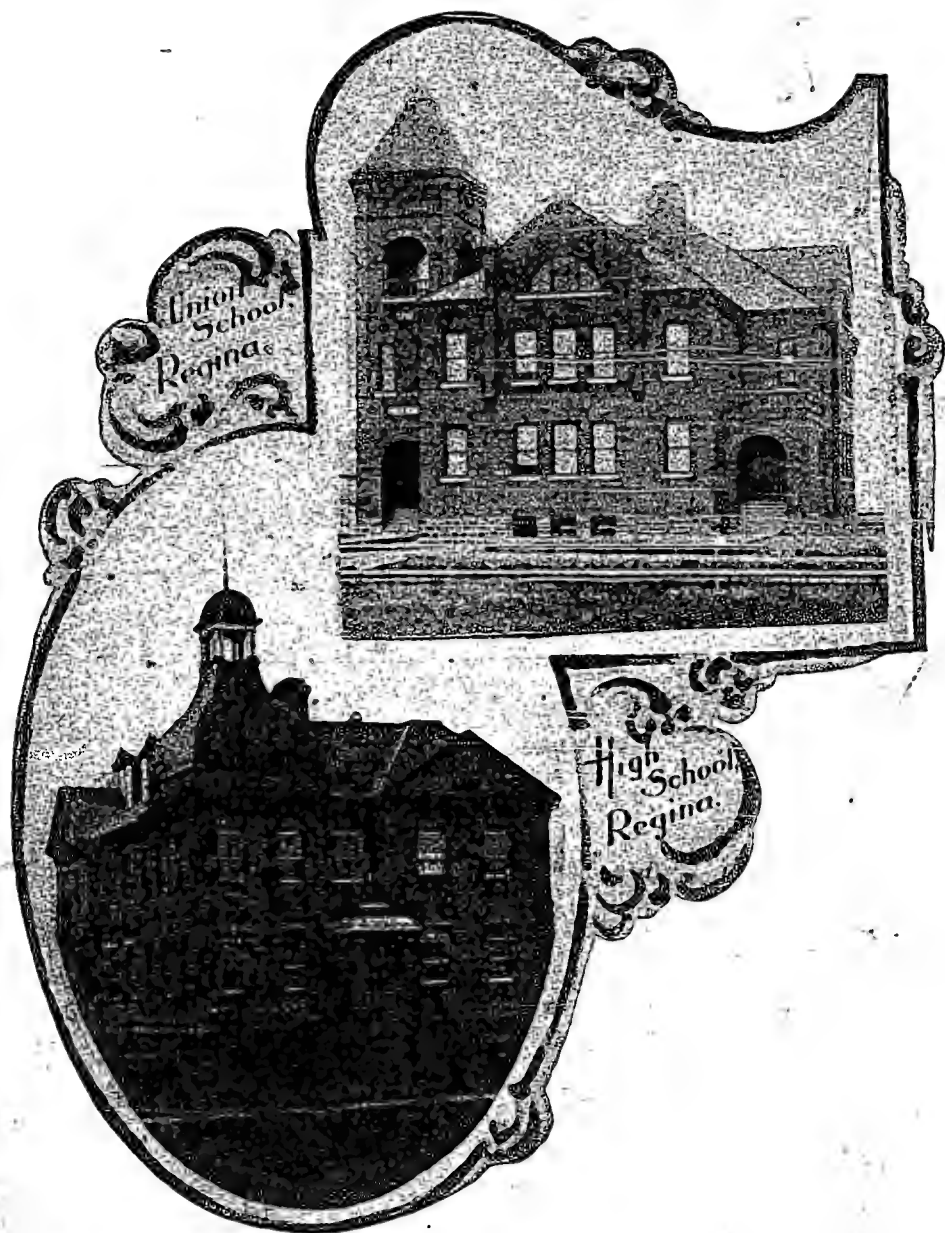
Opinions of Homeseekers

Winnipeg, 15th July, 1901.

Dear Sir: As delegates from Manchester, Washtenaw Co., Michigan, we visited the North-West Territories with a view to ascertaining whether the reports in circulation as to its being a good field for settlement were reliable and true, or not. We trust from our report that anyone reading same may find something that will encourage them to come and partake of the good things offering in this great territory. This is certainly the only term we can apply to it, after a rather lengthy trip of some three weeks' duration.

We left home on the 24th of June, and having decided that it would be advisable to look over the country thoroughly before returning, advised you to this effect on our arrival at Winnipeg. We were furnished by the railway company, at your request, with transportation to Edmonton, in Alberta, and Prince Albert, in Saskatchewan. Our first point of inspection was Didsbury, Alta. This part of the country seemed to us more particularly suitable for ranching and dairying. We visited a number of the farmers in this district, amongst others a Mr. Shantz, one of the good old Pennsylvania stock, although he came recently, some seven years ago, from Ontario, with \$24.00 in his pocket. He has certainly prospered, as he now owns over 70 head of cattle, has a good log house framed over, also a good barn, and in all respects looks a thrifty and well-to-do farmer. He had some good crops of oats and barley. We very much regret that, owing to the wet weather, we could not move around as we could have desired.

Edmonton was our next point of view. We met a large number of well-to-do settlers there. Wheat and all other grains and garden produce looked splendid, and promised a heavy crop. Owing to the great distance to vacant lands, we did not decide on anything there. We returned to Calgary and looked around this beautiful ranching centre, the splendid herds of cattle and sheep; however, we saw very little farming. Returning to Regina, we looked around the country north to Lumsden and Balgonie, where the crops looked very promising and heavy. Continuing up the Regina & Long Lake road, we came to Saskatoon, on the crossing



High School and Public School, Regina

of the South Saskatchewan river. The country there pleased us better than any we have seen. We drove out eighteen miles in a north-westerly direction through the Smith settlement. This is a wonderful district; the growth was splendid, all kinds of grain and roots were perfection. The older settlers had good buildings of all kinds and looked very prosperous, in fact, we came to the conclusion that we had found what we were looking for—a good country. While the nature of the soil changes, and is in some parts light, in others stony, and again heavy, generally speaking it leaves nothing to be desired. Hay and water are also in abundance, and wood can be found along the river slopes and islands. We have decided to locate there, and shall certainly advise our friends to do likewise. We also trust that this report may have the effect of drawing the attention of land-seekers to this district, and can honestly advise all such to locate there. They will find a good thing. As farmers ourselves, from a good district in Michigan, we have come to the conclusion that, properly farmed, the Canadian North-West will grow almost anything.

Your servants,

J. E. BLUM,

J. GRUMPFER.

Yorkton, N. W. T., January 5, 1901.

We, the undersigned delegates from Eden Valley, Minnesota, have just returned from a somewhat lengthy tour of inspecting Dominion lands in the N. W. T., particularly the Edmonton (Alberta) and Yorkton districts, and desire to give you the following report as to the impression we have gained of the country.

We arrived in Calgary about the 20th of December, and although we had left winter in Minnesota and Manitoba, we were surprised to find beautiful warm weather at this point, quite equal to what we have in May in Minnesota. There was no snow nor trace of winter to be seen, and the climate was really splendid. Horses, cattle and sheep were running out in prime condition, with plenty of feed on the prairie. Going north to Edmonton, we found a little snow at one or two points south of the Red Deer River, but nothing to speak of. We ran out of this again and found fine weather in Edmonton. We are impressed with this country as one of the finest mixed farming countries we have ever seen. The immense tracts of fertile lands, well sheltered and abundantly watered, leave nothing to be desired. Stock, as seen on the range at this season of the year, are a proof of this; their condition running out on the prairie is really better than that of ours stabled in the south.

After leaving Alberta, we returned east and visited the Yorkton district. It is to this district we are more particularly attracted. We drove out about ten miles at this point, and were gratified with the splendid samples of grain we were able to see; the samples and yield show the quality of the soil and climate, wheat yielding 25 bushels, oats 60 bushels. Roots were also good specimens. Owing to the wet season, there was not much hay put up in this district, but there seemed to be an abundance of straw, upon which the stock were thriving. From what we have seen, we have decided to throw in our lot with the Yorktoners, satisfied that this part of the country will furnish good opportunities for anyone anxious to make the best of a really good country.

Eden Valley, Minnesota.

THOS. J. HEAGAN,
C. COLLINS.

Edmonton, 1st July, 1901.

We, the undersigned farm delegates from Shawnee Township, Wyandotte Co., Kansas, left Kansas City, Mo., 13th June, 7.10 p.m., making the trip to Winnipeg in 44 hours, after losing half a day at St. Paul. Laid over in Winnipeg 16 hours, and took the Imperial Limited on Sunday at 7.30 a. m. for Alberta, arriving at Calgary in about 24 hours, a distance of 800 miles; arrived at Edmonton at 4 p. m., 70 hours from Kansas, including several half-hour stops.

The country north of Grand Forks to Winnipeg was charming and level, but the farther north we travelled, the richer the soil. The country from Winnipeg to Moosomin was about equally as good, then it became more rolling to Moose Jaw, with droughty looking noles in places, and good farms with good looking crops

most of the way from here to Winnipeg, and excelling in places anything north of Kansas City.

From Moose Jaw to the western boundary of Assiniboia is poorer soil, high rolling country, excellent for ranching, but no good for farming without irrigation. The country from the eastern boundary of Alberta to 40 miles north of Calgary is pretty much the same, but slightly better for farming. Then we get into the wheat belt proper again. It seems like one vast prairie country all the way from Kansas City here, with patches of bush and scrub and belts of timber along the streams.

From Didsbury to Edmonton it is very different, being a more even country generally, not to say flat, and about half woods and brush, near the railway, but plenty of farm houses to be seen at all distances. While there are some good farms along the way, unfortunately for the benefit of new-comers, this section as a whole seems to be settled with a poor foreign element, who do not clear up the brush and scrub along the railway, which makes it look wild and uninviting. This, added to the excessive hard rains during the last two years, fill the sloughs, holes and low meadows, making them look marshy, which are not so other years, from all reports. The farther north we go the richer and blacker the soil looks. It contains sufficient black sand to scour the plow, and no such thing as "gumbo or hogwallow" has been seen since entering Canada. Mr. S. B. Riddle said he had lived in 21 States of the Union, and never saw such rich black soil, that it resembles nearest of anything the black soil of Illinois, just south of Lake Michigan, and the richest parts of Iowa; that he had never seen such a luxuriant growth of vegetables or wild thick bottom scrub as were on these wild prairies, and we all say we have not seen crops so far advanced and luxuriant all along the road from Kansas as they are in the Stony Plain country, 20 to 40 miles west of Edmonton, where we took a four days' trip by team. Here we saw one farm of 800 acres, 400 in crop with wheat and oats, and 35 acres of hulless barley as level as a lake and about 3½ feet high, and very charming. Wheat and oats were fine, but not as far advanced as the barley. We never saw finer potatoes, and all vegetables were looking fine.

Mrs. Kelly, a widow, said she came from South Dakota, where she had had the rheumatism very badly, most helpless at times, and very bad with catarrh. She spent two summers here, and is thoroughly cured of both by the climate, without medicine. She showed us oats and wheat grown on her quarter section that excelled anything we all had ever seen.

Everyone we talked with said they were perfectly satisfied and would not go back to the States. The country is fine and much better than we expected to find it, and better than it was represented. Stock of all kinds is looking fine, and one can raise cattle or hogs at less expense here than in the United States. Mr. Seih had 300 hogs and other stock, besides his 35 acres of barley. Mr. Butchart commenced a few years ago without a dollar and in debt, and now is clear of debt and has 21 head of cattle, four horses, 100 shoats, and about half his farm in crop.

The climate is all right. Everyone we talked to spoke in the best terms about the winters, etc., and from what we have seen we judge that it is. We have gained in weight from 10 to 20 pounds in a month.

The comfort and dispatch of the Canadian Pacific Railway service cannot be beat.

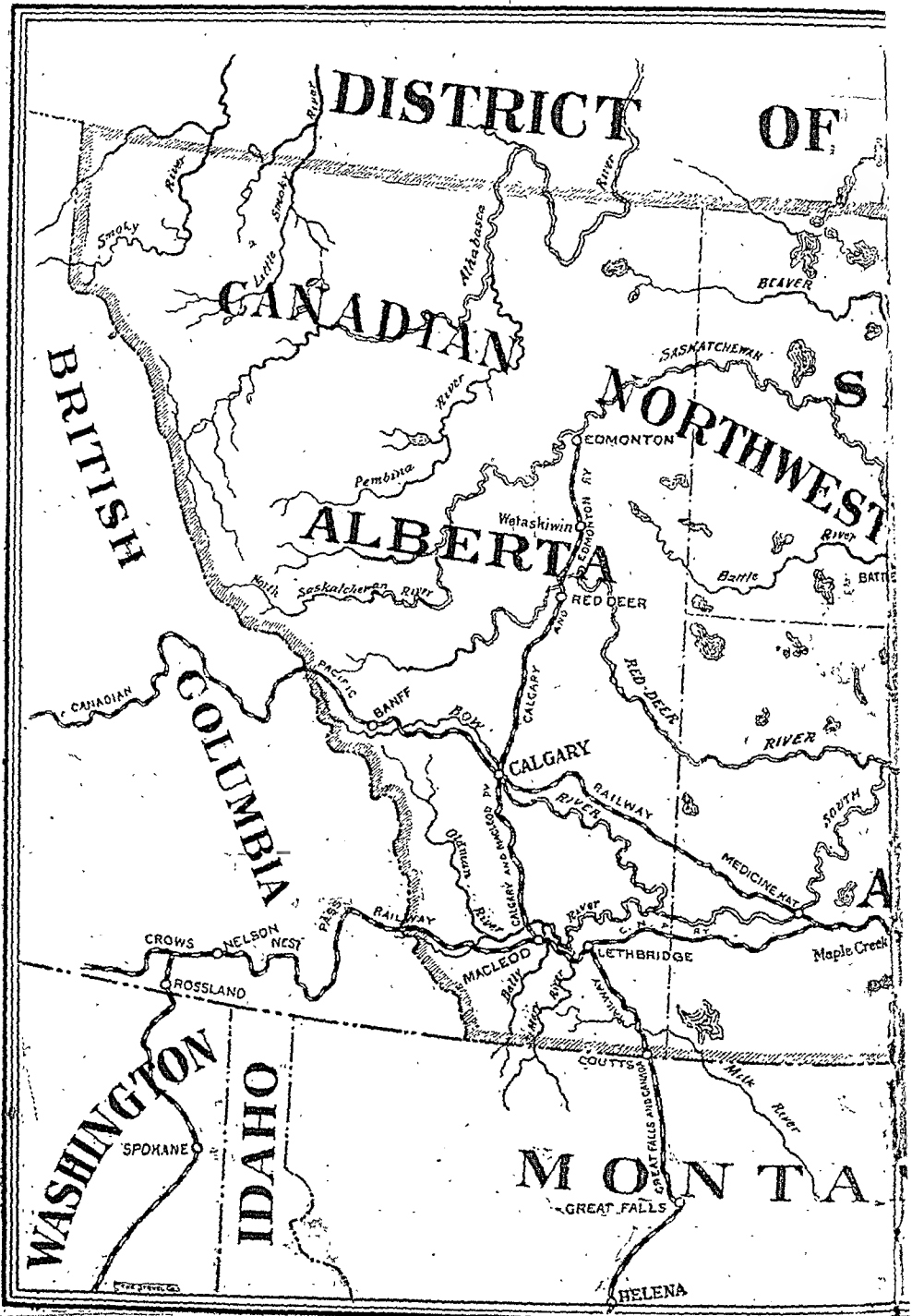
We will return to settle with our families as soon as we can get ready.

S. B. RIDDLE,

W. H. WEBB,

Argentine, Kas.

PROF. J. C. RICHARDSON, M. D.



ASKATCHEWAN

PRINCE ALBERT

SINIBOLA

NA

NORTH
DAKOTA

BISMARCK

PART II

Agriculture

An eastern Canadian province, famous for the excellence of its agricultural products, has been named "The Garden Province" of Canada. The Canadian North-West Territories, embracing over a hundred times the area of the "Garden Province," might appropriately be called "The Great Canadian Farm." It has been stated that the total area of Assiniboia, Saskatchewan and Alberta is about 304,000 square miles, which, reduced to acres, makes about 195,000,000. The total area under cultivation during the year 1900 was 605,347 acres, leaving some 194,000,000 acres awaiting development and for grazing purposes. Briefly speaking, the present cultivated area of the Canadian North-West Territories bears the same proportion to their total area as a small garden patch does to a two-thousand acre farm.

Saskatchewan and Northern Alberta are largely adapted to "mixed" farming; most portions of Southern Alberta equally so, particularly with the aid of irrigation. In that part of Assiniboia lying east of Swift Current wheat is undoubtedly king. The result of variety tests, shown in the subjoined tables, indicates what the possibilities are in this district under a rational system of cultivation. The official crop statistics, also shown, are, of course, compiled from the actual threshing results on each individual farm in the Territories, irrespective of whether the cultivation was good, bad or indifferent.

Intimately connected with agriculture is the nature and quality of the soil. A few years ago samples of representative soils were procured from the various districts of the Territories by Professor Shutt, Chief of the Division of Chemistry of the Federal Department of Agriculture. The following is his official report:

"In the following table I have given analytical data of seven surface soils from the North-West Territories. Though there is a greater uniformity in the texture and composition of soils upon the prairies than among soils of the eastern provinces, no claim is made that the vast extent of the Territories is represented by these samples—they are altogether too few in number. They may serve, however, to indicate the general character of the soils over certain large areas.

"Without discussing these soils in detail, attention may be called to their high nitrogen content and the large amounts of organic matter that are almost invariably present. These soils also contain, as a rule, more than the average amount of potash. Our results do not show them to be noted for phosphoric acid, though they possess quantities quite equal to those in many very fertile soils."

ANALYSIS OF SOILS. (WATER FREE)—CANADIAN NORTH-WEST TERRITORIES.

		Surface.	Potash.	Phosphoric Acid.	Nitrogen.	Lime.
E. Assiniboia.	Yorkton .....	.....	.49	.21	.501	.06
" "	Saltcoats .....	.....	.34	.21	.571	2.09
" "	Moosomin .....	.....	.36	.11	.479	.95
W. Assiniboia	Tilley Tp .....	.....	.27	.18	.398	.37
North Alberta.	Vermillion Hills .....	.....	.17	.17	.354	.50
South Alberta.	Calgary .....	.....	.44	.17	.447	.92

Although a bare soil analysis is not altogether a fair basis upon which to estimate the suitability of a district for farming, a comparison with the figures quoted above, of a series of analyses or representative soils from Minnesota, one of the most fertile States of the Union, made by the State Agricultural College, is of considerable interest.

RESULT OF ANALYSES OF REPRESENTATIVE MINNESOTA SOILS.

COUNTY.	Surface.	Potash.	Phosphoric Acid.	Nitrogen.	Lime.
Dakota County42	.19	.24	.41
Goodhue "40	.17	.24	.64
Hennepin "43	.23	.....	.42
Wabash "20	.38	.16	.49
Freeborn "54	.27	.39	.61
Mower "37	.19	.32	.49
Waseca "21	.48	.27	.53
Martin "57	.11	.22	.93
Watsonwan "36	.19	.20	.77
Swift "39	.16	.41	.99
Stearns "37	.09	.07	.27

It would take up too much space to go extensively into the whole subject of farming in the Canadian North-West Territories. Everyone concedes that "the proof of the pudding is the eating." In other words, actual results speak for themselves more eloquently than written arguments, however elaborately and skilfully they may be constructed. There are any number of farmers in the Territories, who came west with little or no capital some few years ago, raised and educated large families and who could not to-day be bought out for ten to twenty thousand dollars. All the result of hard work and intelligent farm management.

The following table shows the actual average yield of wheat per acre in the chief wheat producing States. A comparison of those

figures with the crop statistics of the Canadian North-West Territories which, owing to lack of departmental organization prior to 1898, unfortunately, are only available from that year, will show, beyond doubt, that the latter are equal, if not superior, to any State in the Union in that respect.

UNITED STATES DEPARTMENT OF AGRICULTURE.

AVERAGE YIELD PER ACRE OF WHEAT, 1891-1900.

States and Territories.	1891	1892	1893	1894	1895	1896	1897	1898	1899	1900	Average
	bus.	bus.	bus.	bus.	bus.	bus.	bus.	bus.	bus.	bus.	
Minnesota	17.6	11.6	9.6	13.5	23.0	14.2	13.0	15.8	13.4	10.5	14.2
Iowa	15.3	11.5	11.5	14.8	19.5	16.0	13.0	16.7	13.0	15.6	14.7
Missouri	13.6	12.5	9.5	15.3	12.0	11.7	9.0	9.8	9.9	12.5	11.6
Kansas	15.5	17.4	8.4	10.4	7.7	10.6	15.5	14.2	9.8	17.7	12.7
Nebraska	15.0	12.5	8.7	7.0	12.0	14.0	14.5	16.4	10.3	12.0	12.2
South Dakota	15.2	12.5	8.5	6.6	12.0	11.2	8.0	12.4	10.7	6.9	10.4
North Dakota	17.8	12.2	9.6	11.8	21.0	11.8	10.3	14.4	12.8	4.9	12.7

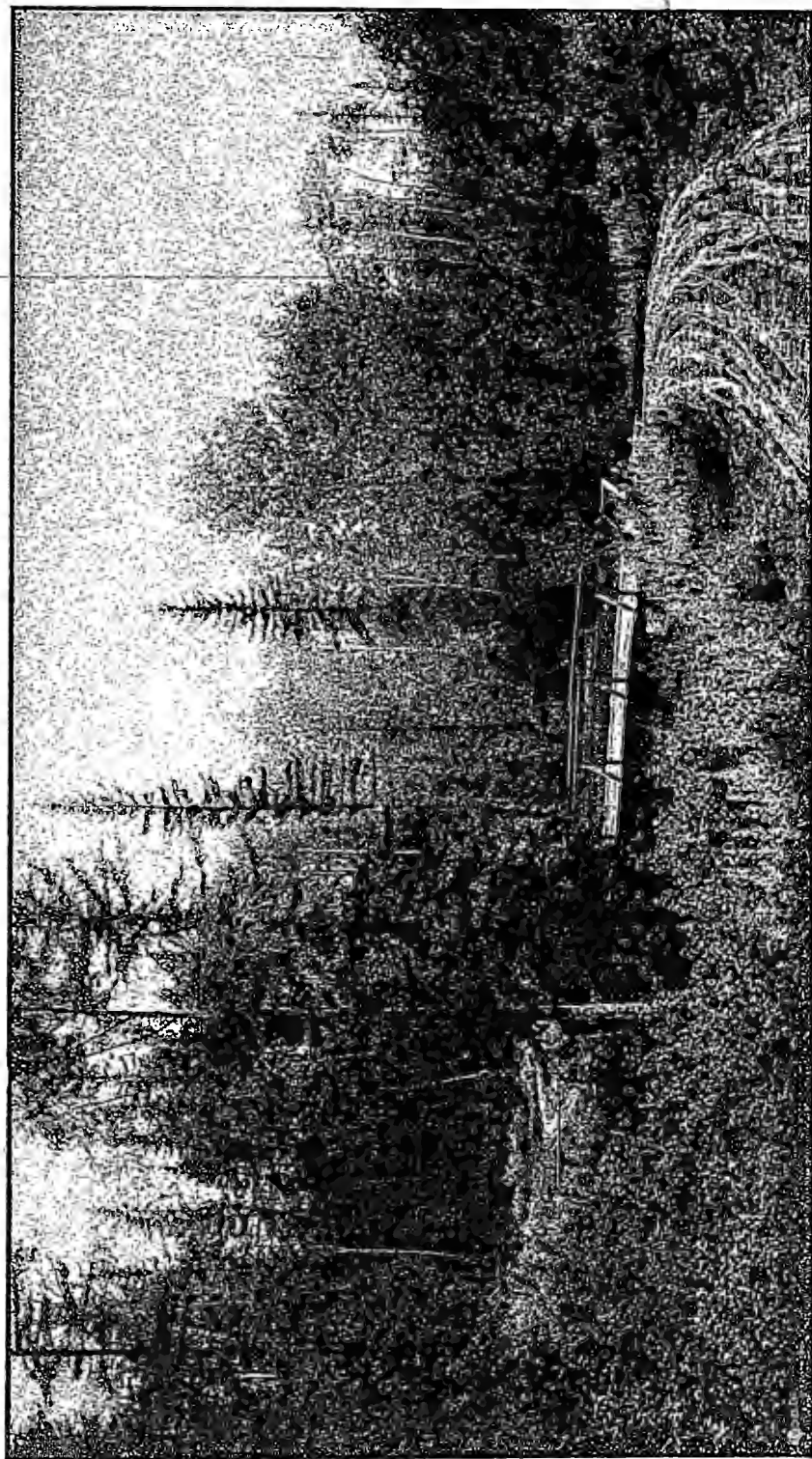
OFFICIAL RESULTS OF RECENT VARIETY TESTS OF WHEAT, OATS, BARLEY, CORN, PEASE AND POTATOES, CONDUCTED AT THE DOMINION GOVERNMENT EXPERIMENTAL FARM FOR THE NORTH-WEST TERRITORIES, LOCATED AT INDIAN HEAD, DISTRICT OF ASSINIBOIA.

SPRING WHEAT

Name of Variety.	Date of Ripening	No. of Days Maturing	Length of Straw	Character of Straw	Length of Head	Kind of Head	Weight of Straw per Acre.	Yield per Acre	Weight per Bushel
		Ins.			Ins.		Lbs.	Bus.	Lbs.
Red Fife	Sept. 4	131	45	Strong ..	3 3/4	Beardless...	4,020	30	40 3/4
Alpha	Aug. 31	127	44	" ..	3 3/4	Bearded...	3,280	33	29 62
Red Fern	Sept. 4	131	45	Medium ..	3 3/4	" ..	3,200	33	29 80
Wellman's Fife	" 6	133	48	Strong ..	3 3/4	Beardless...	6 0	36	20 62 1/2
Dion's	" 4	131	46	" ..	3 3/4	Bearded...	5,580	35	33 3/4
Huron	" 3	130	40	" ..	3 3/4	" ..	3,700	35	33 3/4
Hungarian	" 4	131	42	Weak ..	3 3/4	" ..	3,600	34	46 63 3/4
Rio Grande	" 2	129	46	Strong ..	3 3/4	" ..	4,240	34	29 63 1/2
Roumanian	" 2	129	48	" ..	3 3/4	" ..	2,560	34	29 64
Monarch	" 4	131	43	" ..	3 3/4	Beardless...	4,620	34	20 62 1/2

OATS

Name of Variety	Date of Ripening	No. of Days Maturing	Length of Straw	Character of Straw	Length of Head	Kind of Head	Weight of Straw per Acre	Yield per Acre	Weight per Bushel
		Ins.			Ins.		Lbs.	Bus.	Lbs.
Golden Beauty	Sept. 7	119	52	Medium ..	14	Sided ...	3,580	97	22 39
Abundance	Aug. 30	111	50	" ..	8	Branching.	6,100	97	23 38
Holstein Prolific	" 30	111	48	Strong ..	8	" ..	5,900	97	24 0
Bavarian	" 30	111	48	" ..	8	" ..	5,620	96	16 33 1/2
Banner	" 30	111	55	" ..	9	" ..	4,540	95	30 10 1/2
New Zealand	Sept. 8	120	50	" ..	11	" ..	4,760	95	10 38
American Triumph	Aug. 29	110	51	Medium ..	9	" ..	4,920	93	18 0
American Beauty	" 30	111	51	" ..	9	" ..	4,040	92	32 40
Siberian O. A. C.	Sept. 7	119	56	Strong ..	11	" ..	4,200	92	12 39 1/2
Danish Island	Aug 30	111	49	" ..	10	" ..	4,720	91	26 39 1/2



Rural Beauty, Northern Alberta

BARLEY, SIX-ROWED

Name of Variety	Date of Ripening	No. of Days Maturing	Length of Straw	Character of Straw	Length of Head	Weight of Straw per Acre	Yield per Acre	Weight per Bushel
			Ins		Ins.	Lbs.	Bus. Lbs.	Lbs.
Rennie's Improved	Aug. 17	92	34	Medium ...	2½	3,660	66 28	52½
Trooper	" 19	94	32	Strong	2½	4,480	69 8	52½
Claude	" 24	96	35	"	2½	4,200	69 8	50½
Argyle	" 19	94	34	"	3	3,900	68 36	52½
Mansfield	" 19	94	33	"	2½	2,400	66 32	51½
Blue Barley	" 18	93	31	"	3	3,440	65 40	50
Baxter	" 18	93	32	"	2½	3,500	63 36	53½
Summit	" 19	93	33	Medium ...	3	4,600	62 24	54½
Mensury	" 18	93	36	Strong	3	3,810	62 4	52½
Empire	" 19	94	31	Weak	2½	3,660	61 12	53

CORN

Name of Variety.	Char-acter of Growth	Height.	When Tassel'd	In Silk.	Condition When Cut.	Weight per Acre Grown in Rows	Weight per Acre Grown in Hills.
		Ins.				Tons. Lbs.	Tons. Lbs.
Canada White Flint..	Strong	65	Aug. 23	...	Tassel	12 420	10 1,350
Early Mastodon. ..	"	78	.....	.....	Not tass'd	12 200	16 330
Early Butler	Medium	70	Aug. 26	Sept. 9	Silk	11 770	10 900
Mammoth 8-rd. Flint	Strong	62	" 23	" 8	"	11 200	10 900
Cloud's Early Yellow	Medium	67	" 26	" 6	"	10 1,450	10 1,670
North Dakota White	Strong	64	" 26	" 6	"	10 1,350	8 1,600
Red Cob Ensilage...	"	84	.....	.....	Not tass'd	10 900	13 730
Evergreen Sugar ..	"	68	Aug. 26	Sept. 4	Silk	10 900	12 750
Pearce's Prolific. ..	"	60	" 29	.....	Tassel	10 570	8 1,380
Rural Thoroughbred							
White Flint.....	"	69	" 26	Sept. 4	Silk	10 350	12 1,520

PEASE

Name of Variety.	Date of Ripening.	Number of Days Maturing.	Character of Growth.	Length of Straw.	Weight of Straw Per Acre.	Length of Pod.	Size of Pea.	Yield per Acre.	Weight per Bus.
				Ins.	Lbs.	Ins.		Bus. Lbs.	Lbs
Grey Spring	Sept. 3	117	Strong	40	4,200	2	Small	38 32	64½
Picton	Sept. 7	121	"	47	3,800	2½	Large	38	65½
Crown	Aug. 28	111	Medium	44	3,060	2	Small	35 40	65½
Chelsea	Sept. 6	120	Strong	45	3,100	3	Medium	35	64
Carleton	" 2	116	"	50	3,520	3	"	34 40	64½
Wisconsin Blue....	" 3	117	Weak	35	3,140	2	Small	34 40	65
Macoun	" 4	118	Strong	50	4,240	3	Medium	34 20	64
Archer	" 6	120	"	43	2,540	2½	"	34 20	64
Trilby	" 4	118	"	40	4,940	3	"	34	63½
Grey Winter	Aug. 24	107	Weak	27	4,110	1½	Small	34	65

POTATOES

Name of Variety.	Character of Growth.	Total Yield per Acre.	Yield per Acre of Marketable.	Yield per Acre of Unmarketable.	Form and Colour.
		Bus. Lbs.	Bus. Lbs.	Bus. Lbs.	
American Wonder...	Strong	435 45	330 ..	105 45	Long, oval, white.
Burnaby Seedling...	"	412 30	282 30	130 ..	Long, flat, pink.
Bovee	Medium	390 30	214 30	176 ..	Long, red.
Bill Nye	"	371 15	173 15	198 ..	Long, pink.
Early Sunrise	"	354 45	184 15	170 30	Oval, red.
Brownell's Winner...	Strong	352 ..	173 15	178 45	Flat, dark red.
Carman No. 1	Medium	346 30	206 15	140 15	Oval, white.
Rochester Rose.....	Strong	343 45	187 ..	156 45	Long, red.
American Giant	Medium	338 15	228 15	110 ..	Long, flat, pink.
Beauty of Hebron...	Strong	330 ..	181 30	148 30	Long, flat, red.

OFFICIAL CROP STATISTICS OF THE CANADIAN NORTH-WEST TERRITORIES.

WHEAT

DISTRICT.	BUSHEL'S THRESHLD.			ACREAGE.			YIELD PER ACRE.		
	1898	1899	1900	1898	1899	1900	1898	1899	1900
ASSINIBOIA:									
East	1,938,907	2,506,187	1,239,081	126,186	156,349	165,233	15.38	16.02	7.49
Central	2,281,277	3,329,699	1,780,367	119,733	156,006	192,558	19.27	21.84	9.24
West	46,710	1,255 ..	1,578 ..	1,953 ..	32 ..	49 ..	23.91	39.21	32.93
SASKATCHEWAN:									
East	272,568	238,840	400,616	16,058	15,632	23,535	16.97	15.27	17.02
West	14,049	7,518 ..	24,028 ..	702 ..	440 ..	1,165 ..	20.01	17.08	20.62
ALBERTA:									
North	578,705	721,289	477,575	22,256	29,212	25,539	25.77	24.69	18.89
Central	77,239	44,569	44,669	3,428	2,178	2,115	22.53	20.46	21.12
South.....	47,608	66,257	60,379	1,983	3,674	2,670	24.00	18.03	22.61
TERRITORIES	5,252,063	6,915,623	4,028,294	292,299	363,528	412,864	17.96	19.02	9.75

OATS

ASSINIBOIA:									
East	678,521	1,235,975	604,698	20,015	43,120	46,253	23.58	29.12	13.54
Central	647,067	1,085,489	615,394	25,528	33,859	41,013	24.95	32.05	15.00
West	25,840	19,785 ..	19,886 ..	642 ..	378 ..	466 ..	40.24	52.34	30.77
SASKATCHEWAN:									
East	122,117	164,527	269,344	6,567	5,655	9,873	18.59	29.10	27.86
West	16,152	12,472 ..	36,653 ..	538 ..	453 ..	1,071 ..	30.02	27.53	34.82
ALBERTA:									
North	1,106,291	1,570,314	1,866,308	24,468	36,606	56,422	45.32	42.89	33.07
Central	270,113	341,828	534,093	6,097	8,143	13,429	40.33	41.37	40.98
South.....	164,206	255,646	276,276	3,649	6,724	7,548	45.00	38.01	36.60
TERRITORIES	3,040,807	4,686,036	4,226,652	97,644	134,938	175,439	31.13	34.81	24.08

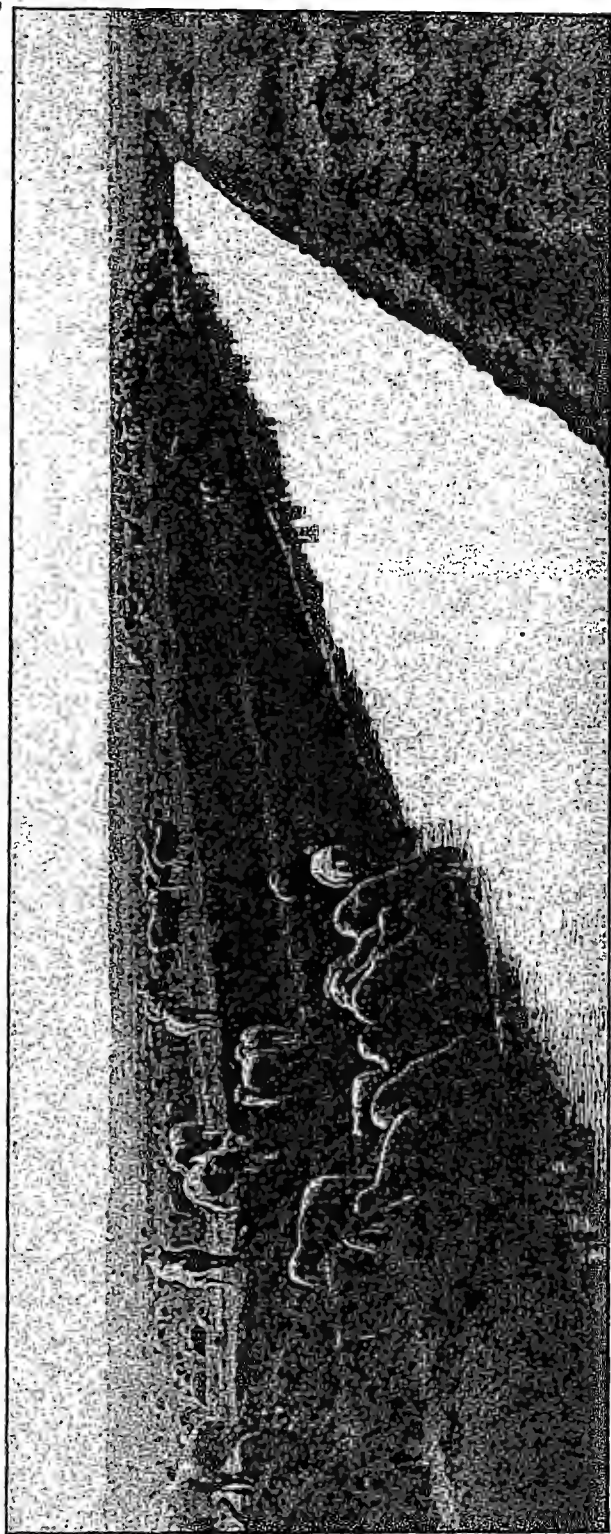
BARLEY

ASSINIBOIA:									
East	81,960	88,080	33,146	3,672	4,218	3,299	22.32	22.30	10.04
Central	37,318	33,688	23,322	1,927	1,504	1,797	19.36	22.39	13.00
West	1,750	2,104 ..	1,838 ..	52 ..	47 ..	36 ..	33.65	44.6 ..	13.27
SASKATCHEWAN:									
East	47,810	37,539	59,250	2,177	1,834	2,607	21.96	20.46	22.73
West	1,915	1,193 ..	1,942 ..	87 ..	53 ..	79 ..	22.01	22.50	24.58
ALBERTA:									
North	194,171	144,265	182,811	6,323	5,928	7,280	30.70	27.07	25.11
Central	28,143	21,687	41,405	988	841	1,481	31.01	25.78	27.95
South.....	15,752	10,895	10,502	492	451	408	32.01	24.09	22.44
TERRITORIES	403,839	337,421	353,216	15,638	14,276	17,044	26.14	23.62	20.72

Irrigation.

In the early days of the settlement of the Canadian North-West Territories it was found that nature could be materially assisted by utilizing the waters of the mountain streams running in an easterly direction through the Territories, for the purpose of irrigating large tracts of lands in Southern Alberta and Western Assiniboia. The Federal Government promptly took the matter in hand and large amounts of money have since been expended in making a complete topographic and hydrographic survey of the south-westerly portion of the Territories, in order to ascertain the volume of water available for irrigation and the most suitable and feasible areas tributary thereto, so as to facilitate intelligent and just administration. A casual examination of the rainfall tables presented in the beginning of this handbook will reveal the fact that there is, in every portion of the Territories, sufficient precipitation almost every year to mature crops. But with the increase of population and prosperity more scientific methods of farming were naturally discovered and utilized, and the introduction of irrigation marks an epoch in the history of these districts. As a matter of fact, farmers now are not satisfied with returns, more or less in accordance with the accident of rainfall, but are aiming at perfection in the development and maturity of their crops. It would, therefore, appear to be a sinful waste not to utilize the means which have been placed at the disposal of settlers in districts favoured with an adequate water supply to supplement the efforts of nature. Having water available in his ditch or reservoir, the irrigation farmer is able to distribute it on his crop at such seasons of the year and in such quantities as experience has taught him are the most propitious to favourable results. He is not at the mercy of the capriciousness of the weather. The contention of the experienced irrigationist is, that those farmers cultivating without the aid of irrigation in any portion of the world where water supply by gravity can be secured, are playing an unskilful game of hazard in trusting solely to the bounty of nature and omitting to take such precautions as have in favoured localities been placed within easy reach. The irrigator, on the other hand, controls his water supply absolutely and has, other things being equal, a crop assured beyond all peradventure. To sum the matter up, irrigation in a country like the Canadian North-West, where the rainfall is in most years ample for an average crop, may appropriately be placed on the same basis as hail insurance. Both are designed to protect the prudent farmer against losses from uncontrollable causes.

Farming by means of irrigation is a novelty to immigrants from the older portions of the Dominion of Canada, from Great Britain, and from several of the European countries, but to the immigrant from those



Sheep on the Galt Irrigation Canal, Southern Alberta

portions of the older countries where irrigation is practiced, and from the western portion of the United States, the opportunity of obtaining a good irrigated farm affords a primary inducement to locate and make a home for himself and family in Southern Alberta or Western Assiniboia. These people could not under any consideration be prevailed upon to exchange an irrigated farm, even in a district more or less arid, for a farm where irrigation is supposed not to be required and could not be readily obtained. Colorado presents a striking example of the great results to be secured by irrigation. In that State there are some 12,500 miles of main irrigation canals, with laterals and sub-laterals bringing over four million acres of land under irrigation. Two and a half million acres of these are at present under a high state of cultivation, and the value of the crops produced on this acreage is equivalent to the value of the product of nearly five times their number of the average farm lands in an eastern State. The United States Government crop reports show the average production of wheat under irrigation in Montana and Colorado to have been 50 per cent. more than in the States of Illinois, Iowa and Indiana, which are recognized as being among the best wheat producers in the United States.

In almost every irrigated district in the Western and South-Western States the cry is invariably for more water, and artesian wells have to be largely relied upon. In the irrigated portion of Southern Alberta, and to some extent Western Assiniboia, on the contrary, there is water in perennial abundance for the irrigation of every foot of land to which it can flow. There is no need, as there is generally in many of the irrigated areas of the United States, to harness the winds blowing over the plains and put them to work bringing up water to the surface from wells. In the construction of the great irrigation canals in Colorado, California and the other States, where such vast areas have been brought under cultivation by means of irrigation, the problem which the engineer has had to solve has been how to secure a constant drop, how to make the most of all available elevation, so that the canal system may carry water to the largest possible area. A railway can be built up grade or down grade, but an irrigation canal system must be constructed so as to be on the down grade all the way. In the Territorial irrigation systems, the main engineering task, as a whole, was how to dispose of elevation.

In the more thickly settled portion of Southern Alberta and Western Assiniboia, natural hay lands are, as might be expected, getting scarce, which is largely caused by their being trampled over and grazed on by extensive bands of cattle, and, consequently, a rancher often winters his stock inadequately provided for a hard season, which, if it comes, may entail a serious loss on the year's operations. Where ranchers can irrigate ten or twenty acres, a bountiful crop of cultivated or natural grass, oat, wheat or rye hay can be absolutely depended upon, and the only risk of any importance connected with the cattle raising industry,

namely, the scarcity of winter fodder, is effectually surmounted. Irrigation also enables the rancher or farmer, even in the driest years, to grow large and succulent root crops for the feeding of calves and milk cows.

It may here be stated that irrigated lands for stock and farming locations can be purchased from the irrigation and land companies at a very low price, upon easy payments and at a reasonable rate of interest; with the further advantage that, under the North-West Irrigation Act, an absolute title is obtained to the water required for irrigation, and the irrigation farmer is not subjected to the disputes and troubles regarding water rights which have hampered irrigation development in other portions of Western America. Lands susceptible to irrigation can also be obtained under the homestead regulations and from railway corporations. In the latter cases, however, it would generally be necessary for the intending settler to have a report of a competent engineer to the effect that such lands can be placed under irrigation at a feasible outlay and that a sufficient supply of water is readily obtainable. Experience in every part of the Western States where irrigation has been practiced has shown that farms put under good cultivation rapidly increase in value. Land with water rights, sold originally from \$10 upwards has become worth from \$25 to \$75 per acre. Such has been the uniform history in Colorado, Wyoming and Utah, where the natural advantages are decidedly not superior to those of the irrigated lands in the Territories.

The irrigation works constructed and in operation in the south-westerly portion of the Territories may be classified as follows:

	Canals and Ditches in Operation.
Calgary District	76
High River District	14
Macleod District	11
Pincher Creek District	15
Lethbridge District	18
Maple Creek District	25
Battleford District	6
Regina District	10

— 175

These ditches or canals comprise a total length of some 525 miles, and the acreage susceptible of irrigation therefrom is approximately 800,000 acres. The larger number of these ditches and canals are private undertakings, constructed for the irrigation of lands belonging to individual owners or ranch companies, but some of the larger works, such as those constructed by the Calgary Irrigation Company, the Springbank Irrigation District, and the Canadian North-West Irrigation Company, are corporate undertakings designed to supply a large quantity of water.

The oldest irrigation enterprise in the Territories is the Calgary Irrigation Company. Its canal heads on the Elbow River and covers practically all the irrigable lands in the Calgary district. Water is sold to consumers at a low rate per acre. This canal is capable of irrigating an area of 45,000 acres. Some 35 miles of main ditch is now completed. The manager is P. T. Bone, C. E., Calgary, N. W. T.

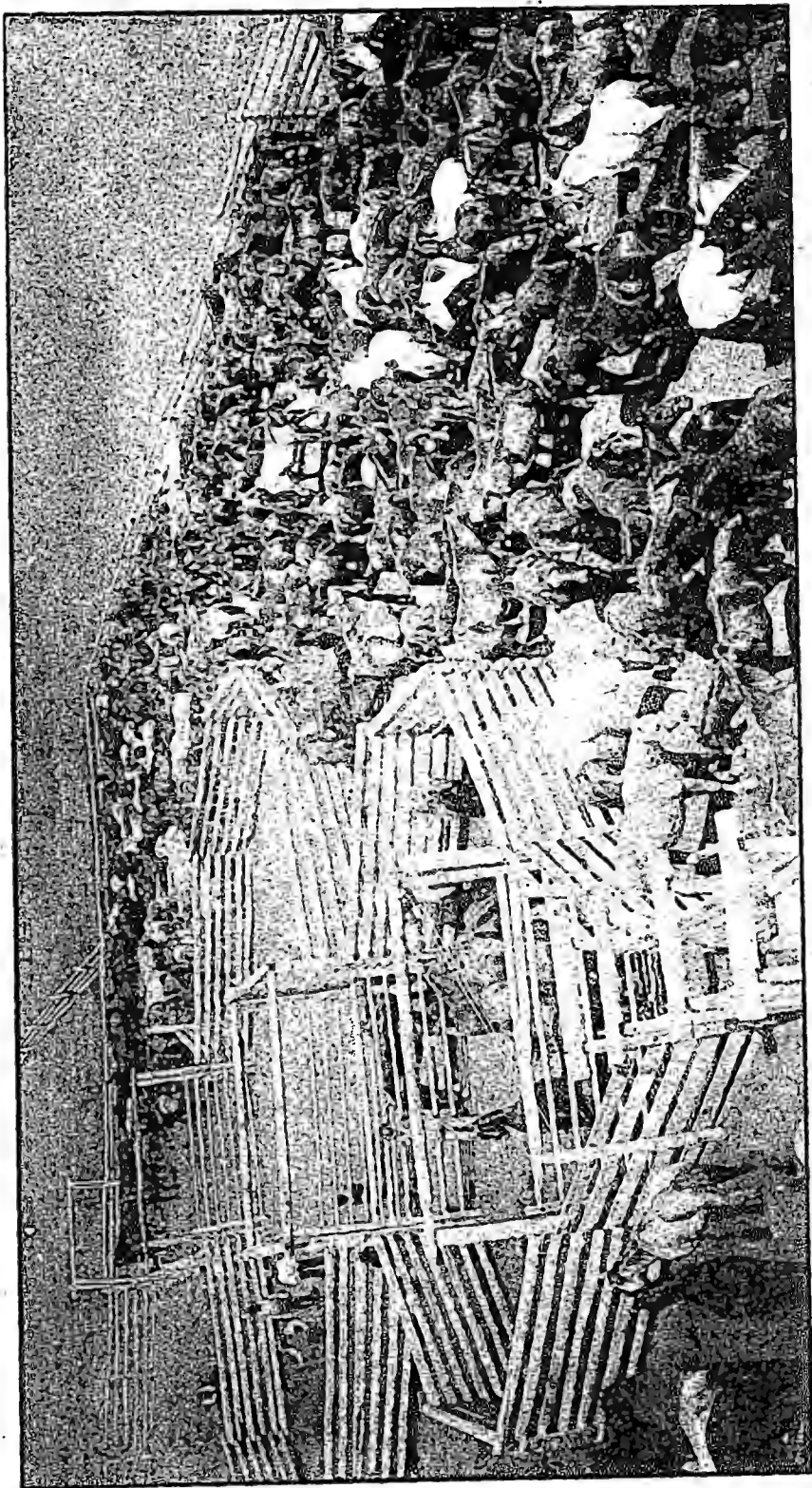
The Springbank irrigation canal is a concern organized under the Ordinance authorizing the formation of irrigation districts with power to construct and operate irrigation works. It is at present in course of construction and will supply water to settlers in the Springbank District, west of Calgary, at cost price.

The latest development in western irrigation enterprise is the construction of the Canadian North-West Irrigation Company's canal, usually known as the "Galt Canal," a new-made river brought into use by the hand of man and given a winding course to make possible the irrigation of hundreds of thousands of acres. This extensive irrigation system, which has been constructed at an expenditure of over \$400,000, draws upon an inexhaustible supply in the lakes fed by the melted snows and glaciers of the Rocky Mountains, from which flows the St. Mary River, where the head works are located. The length of the main canal is 61 miles, of the Lethbridge branch 32 miles, and of the Stirling branch 22 miles, making the entire length of the Galt canal system 115 miles. Water is here provided in never-failing abundance for the conversion of the region into one of rich productive agriculture. The company controls most of the lands tributary to its system, which it sells with water rights at a reasonable price. The manager of this company is C. A. Magrath, Lethbridge, N. W. T.

The Bow River Canal scheme is a gigantic enterprise, which is now claiming the attention of the public. This proposed canal heads in the Bow River, and brings under irrigation millions of acres of lands between Calgary and Medicine Hat. The Canadian Pacific Railway Company, which owns a large area of land in that portion of the Territories, is taking hold of the undertaking in a practical manner and it is likely construction work will be initiated in the near future, the necessary surveys having already been completed.

Live Stock

It has been shown, that there are some 195 million acres, over 300,000 square miles, of land available for free grazing in the Canadian North-West Territories, an area six times as great as the estimated combined grazing area of all the eastern United States. On this enormous extent of country about 235,000 sheep and less than 300,000 head of horses and



Elbow Park Horse Ranch, near Calgary

cattle are at present pastured. Almost every acre of this land will sustain live stock, winter and summer, and the great bulk of it belongs to the most fertile virgin prairie in the world. Millions upon millions of acres of the most nutritious grasses cure on the stem and rot in due course, year after year, without fulfilling their natural mission of furnishing feed for live stock. It seems hopeless to attempt to grasp the possibilities of a two hundred million acre ranch, at present practically unstocked or only stocked at the rate of about one head of cattle, horse or sheep for each four hundred acres. A comparison with the States of Montana, Idaho and Wyoming is of peculiar interest. While these States do not contain nearly as extensive an area of fertile lands as the Territories, being largely rocky and mountainous, they represent almost an equal total area.

State or Territory.	Total Area in Million Acres.	Acreage under Cultivation.	Acreage Available for Grazing.	Estimated Number of Horses.	Estimated Number of Cattle.	Estimated Number of Sheep.
Wyoming.....	59	339,290	58,660,710	72,312	747,826	2,840,190
Idaho.....	57	438,731	56,561,269	128,710	397,928	2,658,662
Montana.....	91	519,154	90,480,846	147,659	959,808	3,884,179
Total.....	207	1,297,175	205,702,825	348,681	2,105,562	9,383,031
The Territories.	195	605,347	194,394,653	50,000	250,000	235,000

As is well known, all cattle and sheep raised in the Western States are shipped to the Upper Mississippi Valley States to be finished for the market. The following is a quotation from a report by Professor C. F. Curtiss, Director of the Iowa Agricultural Experiment Station, on this subject. Speaking of the States lying west of the One Hundredth Meridian, Professor Curtiss says:

"Already this locality is producing about one-half of the total number of sheep in the United States. During the past few years sheep have been rapidly crowding the cattle off the northern portion of this range territory, and it is quite generally recognized that the range-cattle industry is gradually disappearing, except in the southern section. While this territory is favourable to the grazing of stock in large numbers, the natural conditions will not permit of the production of sufficient feed to properly fatten and finish the stock grown there. The finish can only be done by drawing on the surplus grain crops of the Upper Mississippi Valley States."

To the excellence of the Canadian North-West as a grazing country, no higher tribute can be paid than the statement, that *all cattle and sheep exported, are consigned direct to their final destination, no*

grain finishing process being required, to fit our range beef and mutton for consumption. Here is where our nutritious prairie grasses, pure and abundant natural water supply and healthy and invigorating climate, make their influences felt.

For the purpose of discussing the advantages of the Territories for live stock husbandry, the country may be roughly divided into two great sections, namely, *the farming section* and *the ranching section*. The former consists of Eastern Assiniboia, Saskatchewan and Northern Alberta, the latter comprises Western Assiniboia and Southern Alberta. It is not, however, to be supposed that there is no farming done in the ranching section or ranching in the farming section. The two divisions outlined merely present somewhat varying climatic conditions, necessitating different methods of managing live stock. The most important distinction between these two natural divisions is the lesser degree of humidity prevalent in the ranching section, which causes the prairie grasses to suspend growth early in the autumn when they are subjected to a regular process of curing on the stalk during the bright, sunny fall season. Herein lies the explanation of what, to the uninitiated, is somewhat of a mystery, namely, that cattle horses and sheep are able to range out all winter on the snow-covered prairies of the Canadian North-West Territories and apparently to keep in good thrifty condition. This peculiarity was first brought into prominence during the early days of settlement through the medium of the Buffalo, which thrived admirably all winter upon the cured grasses. It was also found, that horses which had strayed or had been abandoned on the prairies, by survey parties and travellers, often turned up after several years of ranging out looking sleek and fat. Enterprising stockmen were not slow to turn this interesting discovery to advantage, and many large companies were formed to stock the western prairies, which have all been, more or less, successful according to the character of the management, which, it must be admitted, was generally defective.

Cattle

It is significant, that nearly all the large fortunes which have been accumulated in the Canadian North-West Territories, owe their origin, directly or indirectly, to the cattle business. To those acquainted with the local conditions, this fact causes no surprise; it is, however, very surprising that Montana and Wyoming ranchers should be so slow to move their herds across from the over-crowded ranges of the Western United States to the extensive free grazing areas of the Canadian Territories.

The following statement shows the export of cattle from the Territories during the years 1899 and 1900:

	DISTRICTS.	Year.	East.	West.	Total Ship-ment.
Farming Section	Saskatchewan	1899	2,765	.....	2,765
" "	" "	1900	4,260	.....	4,260
" "	Northern Alberta	1899	568	55	623
" "	" "	1900	492	921	1,413
" "	Eastern Assiniboia	1899	7,973	10	7,983
" "	" "	1900	13,871	47	13,918
Ranching Section	Western Assiniboia	1899	10,929	170	11,099
" "	" "	1900	10,942	172	11,114
" "	Southern Alberta	1899	13,095	5,906	19,001
" "	" "	1900	18,549	5,875	24,424
	The Territories	1899	35,330	6,141	41,471
	" "	1900	48,114	7,015	55,129

It is quite safe to state, that there are very few farmers in the Canadian North-West who do not make cattle raising a more or less important feature of their operations. An examination of the above figures will show that the farming section is no inconsiderable cattle producer, although the bulk of the stock, of course, comes from the ranching section. The cattle stock of the farming section is generally well cared for owing to the necessity of stabling or shedding the stock during the winter, which again involves regular feeding and watering, and the farmer, therefore, is compelled to reduce his herd within the limits of the stable or shed accommodation and the quantity of winter feed available. This necessitates smaller numbers and enables the farmer to control the breeding intelligently and to devote personal attention to each individual head of stock. The result has been a uniform high standard of excellence in the quality of calves and the minimum of casualties both among the calves and dams. While the farming section of the Territories is principally suited for cattle breeding in connection with mixed farming, stockmen in the ranching section proper, are gradually bending their whole efforts more towards the business of maturing cattle. A very large number of young stocker cattle are annually sold and shipped from the farm to the ranch, which is proving a very profitable business for both.

The days of the long horned, wild eyed range steer are rapidly drawing to a close and the professional "cow puncher" is changing his methods and gradually conforming to the new order of things. In the early history of cattle ranching, the stock was branded, placed on the range and severely left alone between the annual round-ups, when the beef was gathered and the young calves branded and turned out to take their chances until maturity, as their parents had done before them. If bad seasons came along, the weak animals died and the fittest survived, according to the inexorable laws of nature. As years passed by, it became evident, that some measure of constant care and attention could profitably be bestowed upon the stock and ranchers commenced to wean the calves

in the fall and provide feed and shelter for them during the first winter. The breeding cows were also herded during the summer and mated with pure bred bulls in sufficient numbers, which were removed and kept up at the end of the breeding season. This ensured a larger increase and avoided the dropping of late or too early calves. Close supervision was exercised over the stock during the winter and weak cows promptly gathered and fed. The periodical round-ups were also organized in a more systematic manner and the result is that to-day, the losses on the range have been reduced to a mere minimum, while the quality of the stock has been considerably improved and the working expenses, though larger than under the old system, or lack of system, are more than counter-balanced by the increased profits due to the more humane and rational methods now in vogue on the cattle ranches of the Canadian West. To convey an idea of the class of cattle now produced in the Territories, it may be mentioned, that a train load of four-year-old steers from the Cochrane ranch, after being driven 140 miles and shipped by rail 2,300 miles to Montreal, weighed at the end of the trip on the average 1,385 lbs.

The following is an extract from the 1900 report of the Territorial Department of Agriculture, bearing on the prices received for range cattle:

"Export cattle from the Calgary district brought $3\frac{1}{2}$ cents per lb. live weight, averaging somewhere about \$50 per head. From \$40 to \$42 per head was paid for light cattle. Exporters from the Medicine Hat and Lethbridge districts averaged about \$45 per head, shipments being largely confined to threes and fours. The prices paid for Prince Albert, Battleford, Yorkton, Touchwood Hills, Moosomin, Dundurn and Regina cattle ranged from \$40 to \$45 for three to four-year-old steers, the majority bringing \$45. Export dealers were prepared to pay for choice heifers and steers, weighed off cars at Winnipeg and tipping the scales at 1,200 lbs., \$3.75 per cwt., purchasers assuming freight. As a general rule, our stockmen obtained \$50 per head for four-year-olds and \$45 for three-year-olds at their front doors."

During the past few years prices for all classes of cattle have steadily increased, and at the present time breeding herds which, a few years ago, were sold for from \$23 to \$25 per head all round, cannot be purchased for less than \$28 to \$30. Three-year-old cows, \$32 to \$37 each; old cows from \$24 to \$28. Calves from six to eight months old are worth \$14 to \$16.

A great many enterprising men have obtained their first start by investing a few hundred dollars in yearling steers and ranging them with their employer's band. Where such cattle can be watched and looked after the investment readily doubles every third year and, with what wages are earned in the meanwhile, soon places a man in a position where he can start on an independent basis.

The Territorial Government has interested itself very considerably

in encouraging the importation of pure bred bulls. Under an arrangement with the Canadian Pacific Railway, the Government carries a pure bred bull for an actual settler from any point in the Provinces of Ontario or Manitoba to any point in the Territories at a uniform rate of \$5.00 per head, the Government taking entire charge of the shipment. The great bulk of the bulls brought into the Territories are of the Shorthorn, Hereford, Polled Angus and Galloway breeds. Representatives of the Ayrshire, Holstein, Highland and other breeds are, however, quite numerous. Bulls for breeding purposes are imported chiefly from the eastern provinces of Canada, the United States and from Great Britain. Breeding enterprises with the object of raising pure bred bulls, under the management of experienced men, would doubtless prove profitable ventures. Several are already being carried on, furnishing a class of stock not excelled by many of the older established farms of Eastern Canada or the United States. Pure bred bulls are worth from \$100 to \$200 per head at western points. It is estimated that over 2,600 bulls are required in the Territories each year to provide for the natural increase of the cattle stock. Not more than 15 per cent. of these animals are at present produced locally.

Horses

From time immemorial the horse has been man's faithful and indispensable servant. Some few years ago when he was to some extent supplanted by steam and electric motive power, a panic ensued, and the conclusion was formed that the noble animal had at last outlived his usefulness, and that presently a horse would prove a rare sight in countries of advanced civilization. Events have entirely failed to justify this view. It is true, that many of the services hitherto performed by the horse are now being better and more economically accomplished by machinery. The same may, however, be said about the services of man. Through the invention of labour-saving machinery, the human race has been relieved of much monotonous drudgery, but the effect of this development has not, by any means, been to decrease the value of human labour. Man has reached a higher sphere of usefulness, and his friend, the horse, has followed him. We may, therefore, confidently look forward to a permanent demand for horses at remunerative prices.

It may without exaggeration be said, that the Canadian North-West Territories is the natural home of the horse. Every condition is present to make horse breeding the most profitable of occupations. Excellent soil, containing an abundance of lime; the high altitude, dry and invigorating climate, sufficiently arid in the ranching section to bring the horse to perfection, splendid markets south, east and west and unrivalled economy in production. No country in the world can compete with the Territories in this branch of stock raising. When the horse market is dull



Stacking Oats

and other countries are producing at a loss, the Territorial breeder can still ship at a reasonable profit. When horse values are buoyant and other countries are making a working profit, the Territorial breeder is coining money. Why? Because in the Canadian West the cost of raising a horse is practically *nil* outside the risk to the mare and the cost of service fee, if the breeder has not a stallion of his own.

While it is absolutely a fact that horses can be raised in the Territories at a mere nominal cost, the day of broncho "busting" is past never to return again, and the individual who desires to make a success of horse breeding must make up his mind to raise no more colts than he can thoroughly handle, halter-break and stable, and have the best brood mares that his means will admit of. In the cattle ranching business the chief consideration is to produce quantity, both in bulk and number, but the breeder of horses, if he is a wise man, will devote his attention to nothing but quality. It stands to reason, that horse raising on a large scale is a business beset with all sorts of difficulties. The violent system of breaking the horses necessary to adopt where time is limited and help expensive, the improbability of getting them thoroughly trained for city work and accustomed to being handled, in the short time which can be devoted to each horse, after he has spent the first four or five years of his life roaming over the prairie enjoying absolute freedom, the indiscriminate and injudicious mating, where the numbers are too great to give individual attention to the peculiarities of each mare, these are objections which condemn the range system of horse breeding now in vogue and point towards the farm as the proper place to produce and handle horses. The above remarks refer with particular force to light draught and saddle horses. The heavy draught horse is naturally of a more phlegmatic disposition and is consequently more easily reconciled to the mastery of man.

The native broncho is fast being crowded out by better bred animals. He has his redeeming qualities, but in a few years the horse stock of the Territories will be so graded up, that the broncho will practically be buried in oblivion. Nearly all the well-known breeds of horses are to-day represented in the Territories. The most numerous are the Clyde, Thoroughbred and Standard bred. Thoroughbred sires from Great Britain and Kentucky, Clydesdales from Scotland, Percherons from France and trotting stock from the United States have been imported regardless of expense, and the result is that the Territorial-bred colt will compare favourably with any in Canada, and are readily marketable in England and Belgium. Good three-quarter-bred Clydes and Shires, which at maturity will weigh 1,400 lbs. to 1,600 lbs., have been finding a ready local sale at three years old for \$100 to \$150. Useful horses of other classes bring from \$75 to \$125. During the past year a successful shipment of polo ponies was made to England. The British War Office has recently had a purchasing party traversing the country

with most satisfactory results both to the Government and to the Territories and it is a foregone conclusion that this visit will result in a permanent market being established for Territorial-bred army remounts.

It is difficult to conceive of a more delightful occupation than horse raising in the North-West Territories. The return for capital invested in the right kind of breeding stock must necessarily be greater than anywhere else if the business is conducted along rational lines. A few good horses can be raised upon every farm without materially interfering with the work; the new-comer should, however, be careful not to embark in horse breeding exclusively unless his capital is sufficient to secure first-class brood mares, the services of a superior stallion and good accommodation in the way of fenced pastures and outbuildings.

Sheep

Every portion of the Canadian North-West Territories is more or less adapted to sheep husbandry. In the farming section shed feeding in the winter time is necessary, while in the ranching section, the sheep range out summer and winter and only a small quantity of feed and the roughest of shelter is required for use on stormy days. The following statement shows the distribution of the present flocks in the Territories, as well as other interesting information bearing on this industry:

DISTRICT.	No. of Ewes.	No. of Males.	No. of Lambs.	Total No. of Sheep.	Total No. of Flocks.	Average Weight of Fleeced.	Average Size of Flock.
						lbs.	
Eastern Assiniboia	7,850	1,839	4,533	14,222	194	8 1-6	73.3
Western Assiniboia	95,232	53,533	35,235	184,000	35	6	5,257.0
Southern Alberta	14,184	8,946	6,240	29,370	32	6 2/3	917.8
Northern Alberta	2,477	1,664	1,238	5,429	88	7 2/3	61.7
Saskatchewan	1,479	203	813	2,500	62	8	40.3
The Territories	121,232	68,190	48,109	235,521	411	7.29	573

In the early history of settlement in the ranching districts of the Territories, a large number of sheep were brought from the States of Wyoming, Idaho and Montana. These were principally grades of the Merino breed. It speaks well for the Territories as a sheep country, that the weight of range sheep carcasses has been increased from about 48 lbs. (the average weight of the original stock) to about 80 lbs., which represents the average weight of well-bred ranch wethers to-day. It may be argued, that this marvellous development has partially been brought about by the use of mutton sires. While that is to some extent true, this improvement has evidently not been accomplished at the expense of the wool-growing capacity of the sheep, in view of the fact, that

the average weight per fleece for the Territories is 7.29 lbs., while the average for the United States does not reach 6 lbs. per fleece, Montana being 6.80 lbs., Wyoming 7.75 lbs, and Idaho 7.50 lbs. These figures speak for themselves.

It is doubtful whether any branch of ranching holds out as enticing prospects as sheep raising. The capital required is not very large and returns after one year from the sale of the wool, may be counted upon. The sheep is essentially the "poor man's friend." The usual expectation is, that the wool clip pays all running expenses while the mutton represents the net profit. While the price of wool has not been very satisfactory during recent years, 10 cents per pound in quantities, can usually be relied upon. Several woollen mills have now been established throughout the Territories, where 11 to 12 cents per pound is readily paid.

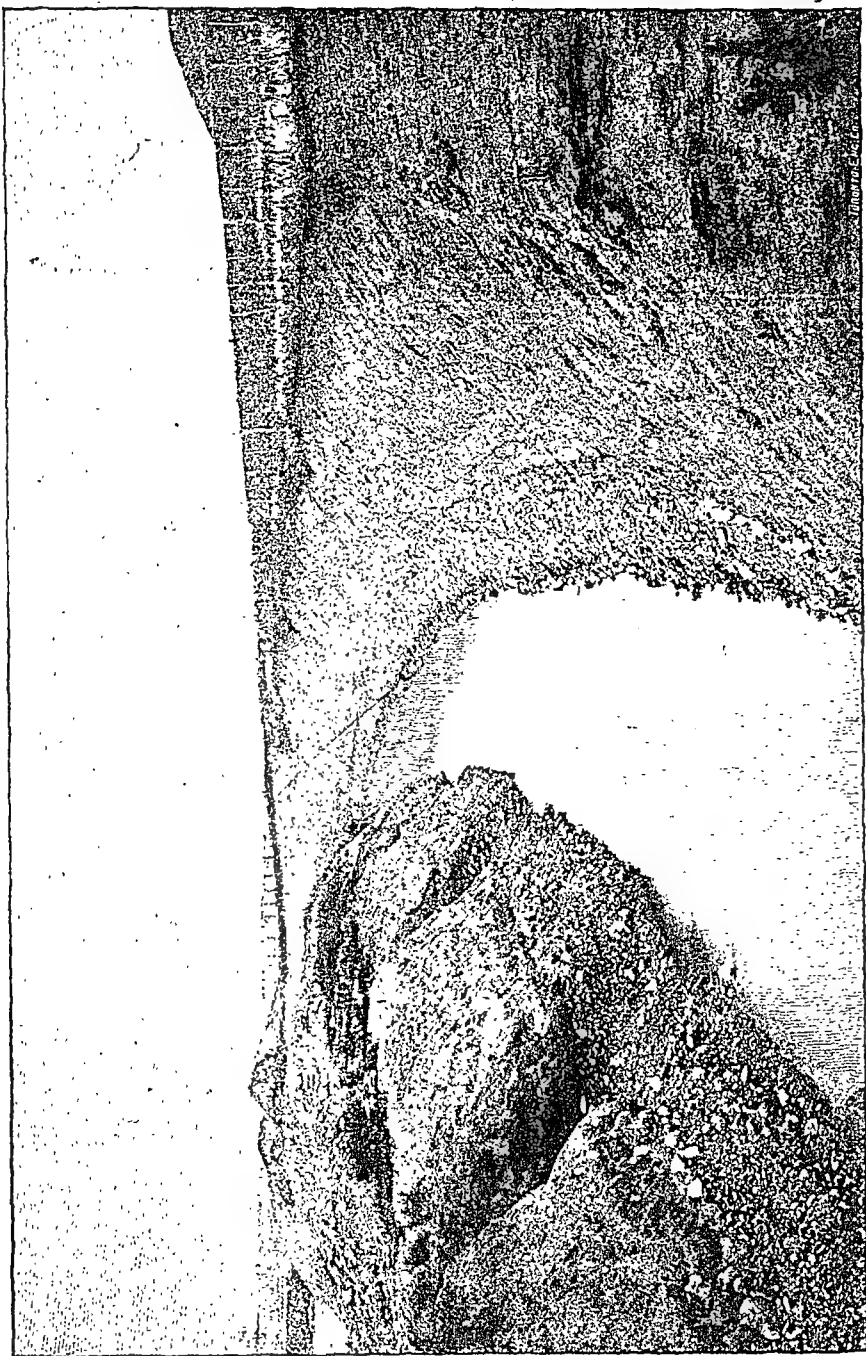
On the ranches sheep are usually herded in flocks numbering up to 2,500 head in charge of one herder. The only outlay necessary in the way of buildings is for rough winter shelter and a house for the shepherd. During the summer season the sheep are moved from place to place and the herder camps with them. The largest sheep owners in the country report an increase, by actual count, of 94 per cent. on the ewe flocks, while the average losses seldom reach 5 per cent. of the total number of sheep. The total absence of endemic diseases, doubtless due to the healthfulness of the climate, is, of course, largely responsible for this low mortality of sheep.

During the present year, fat sheep readily command a price of \$7.50 per head at the ranches and with the large demand in the mining districts of British Columbia, which the Territories are as yet quite unable to supply, there is no likelihood of prices decreasing to any appreciable extent.

The bulk of the rams purchased annually by Territorial flockmasters are pure bred Shropshires and Oxford Downs. Some Leicestershires, Cotswolds and Southdowns are also used. There are very few breeders of pure bred sheep in the Canadian North-West and there would appear to be a good opening in this line of business for experienced men with the right class of stock. Strong, close-woolled rams are required for range purposes and \$12 to \$18 per head is paid for home-bred, acclimated stock.

Hogs and Poultry

The mining districts of British Columbia furnish an unlimited and remunerative market for Territorial pork and poultry produce and there is also a heavy local demand for these products of the farm.



Irrigation Canal, near Calgary

The following communication from a practical man, stating his experience in pork raising, indicates the profits which farmers may reasonably look for from this source:

"During the last two years I have made a careful test as to the profit to be derived from the raising of hogs and at the request of a number of farmers I will give you a short statement of the result. I do not claim that this will be an accurate showing, as I consider with good handling by an experienced hog raiser much greater profits may be shown.

"I have charged up to my hogs all the barley consumed by them at 30 cents per bushel but I have not made any charge for labour, so that the profits will have to represent labour and interest on money invested. On the 15th day of July 1899, I commenced with \$175, and on the 15th day of July 1900, I had \$375 worth of pigs. The following statement shows a balance of \$660.45 to the credit of the pigs. You will notice from this statement that the greater portion of the feed was bought, which fact should dispel the statement so often made by farmers, that raising pigs does not pay if one is obliged to buy the feed. I am of the opinion, however, that there is no branch of farming which will give a larger percentage of profits, if judiciously managed, than the raising of pigs.

"Yours respectfully,

"(Signed) D. SMITH."

RECEIPTS.	EXPENDITURE.
Pigs on hand \$ 375 00 Feed on hand 5 00 Received from sale of pigs 1003 38 Received from sundry resources 39 25 Meat and lard consumed 65 00 Lard sold. 20 00	Pigs on hand..... \$175 00 Pigs purchased 64 50 Paid damages on crop destroyed by pigs..... 5 00 Paid for buttermilk 29 00 Barley raised and consumed... 150 00 Barley bought and consumed.. 66 00 Feed purchased from mill for pigs and paid for chopping. 358 18
Total \$1508 13	Total..... \$847 68

Most of the hogs raised in Eastern Assiniboia are marketed in Winnipeg, Manitoba. Two large pork packing establishments have, however, recently been erected in Alberta, at Calgary and Edmonton, where the highest cash price is paid for all classes of hogs. The following

statement shows the prices for live and dressed pork for each month of the years 1899 and 1900 at Winnipeg and Edmonton:

MONTH.	WINNIPEG.				EDMONTON.			
	Live		Dressed		Live		Dressed	
	1899	1900	1899	1900	1899	1900	1899	1900
	c. per lb	c. per lb	c. per lb	c. per lb	c. per lb	c. per lb	c. per lb	c. per lb
January	4¾	4¾	6¼	6½	4¼	....	5¾	6½
February.. .	4¾	4¾	6¼	6½	4¼	....	5¾	6½
March.....	4¾	5	6¼	6½	4¼	....	5¾	6½
April.....	4¾	5	....	....	4¼	5½	5¾	....
May.....	4¾	5¼	....	....	4¼	5½	5¾	....
June.....	4¾	5	....	....	4¼	5½	5¾	....
July.....	4¾	5	....	....	4¾	5½	6	....
August.....	4¾	5	....	....	5¼	5½	6¼	....
September	5½	5¼	....	....	5¼	5½	6¼	....
October.....	5½	5½	5¼	....	4¾	5½	6¼	....
November	4¾	5¼	5¼	6½	4¾	....	6	6½
December	4¾	5	5¼	6½	4½	....	5¼	6½

There is an excellent opening in the Territories for poultry raising on the farm. Fifty cents per dozen for eggs is frequently paid in the winter time and the price, even in the early summer, seldom goes below 15 to 20 cents.

The Dominion Government has just completed a scheme having in view the development of the poultry industry in the Territories. A number of "egg-gathering stations" have been organized along the Calgary & Edmonton Railway, and the main line of the Canadian Pacific where government officers collect the eggs from the farmers and, when a sufficient number are available, ship them to the mining districts and in due course remit the proceeds to the proper owners. All of this is done free of expense to the patrons.

Dairying

An authority on the subject has stated, that an agricultural country never reaches the maximum of development until its farmers engage extensively in dairying. Certainly, if the agricultural possibilities of the Territories may be estimated by their adaptability to dairy farming, even the most sceptical observer must acknowledge that they are beyond doubt one of the grandest agricultural countries in the world. It may be said, that there is no portion of the Territories where dairying cannot be profitably prosecuted. In the past, however, the most successful creameries have, as indicated in the statistical statement subjoined, been those

located in North-Eastern Assiniboia, Northern and Central Alberta and Saskatchewan, where the natural conditions so closely approach the ideal, that dairy farming could hardly fail to be profitable. These districts are more or less wooded and a bountiful supply of pure, cold spring water is available almost everywhere. Other important advantages are the absence, in most years, of the fly and mosquito pests, the uniformly cool nights and the excellent market for dairy produce in the mining districts of British Columbia. The ranchers of Southern Alberta and Western Assiniboia and the farmers in that portion of Eastern Assiniboia devoted almost exclusively to wheat raising, have not, it must be confessed, in the past exhibited any enthusiasm in respect to the dairy question. It is, however, surmised that this apparent apathy is largely due to the fact, that they are making more money by devoting all their time and energy to raising wheat or beef. There can be little doubt, that in the end a more diversified system of farming would be the most profitable to them and beneficial to the country; but human nature is easily tempted by immediate returns and inclined to let "to-morrow look after itself."

The creamery organization in the Territories is one of which we are justly proud. It has been pretty well demonstrated in past years, that individual butter making and butter marketing, will never place a country in the front rank of butter producers. The phenomenal success of Denmark, since co-operative dairying was brought to a state of perfection there, well illustrates the point. Some years ago the people of the North-West Territories recognized that fact and conveyed their ideas to the Dominion Government, which promptly placed experts at their disposal and eventually organized a chain of co-operative creameries all through the Territories. These institutions, while subject to the control of the patrons, through boards of directors, are under absolute Government management. Most of the patrons separate their milk at home by means of hand separators and bring the cream to the dairy station once or twice a week in large cans. The cream is then carefully tested and weighed, and at the end of every month each patron gets credit for its equivalent in butter and receives a cash advance of ten cents per pound. When the total output of butter for the season is disposed of by the Government, a cheque for the balance due each patron is sent him from the Department of Agriculture. Any settler having the means to procure a few milch cows can thus ensure a monthly cash income sufficient to pay all his ordinary running expenses.

Although there are a few cheese factories in operation in the Territories, they have never become very popular. Owing to the high prices of young stocker cattle, as well as matured beef cattle, the dairy farmers prefer to use all their milk for raising calves so as to have a double source of income, butter and beef.

**SUMMARY OF THE BUSINESS FOR SEASONS OF 1898, 1899 AND 1900 AT THE DOMINION
EXPERIMENTAL DAIRY STATIONS IN THE CANADIAN NORTH-WEST TERRITORIES.**

NAME OF STATION	No. of Patrons	Inches of Cream Supplied	Pounds of Milk Supplied	Lbs. of Butter Manufactured	Average Price Realized at Creamery	Mfg Charge per Pound	No. of Days in Operation	Gross Value of Product
					Cts.	Cts.		\$
Calgary	1898 59	15,627	125,186	19,389	20.25	4	168	3,926.70
	1899 43	24,866.7		24,677	21.56	4	174	5,319.47
	1900 65	37,824.2		34,069	20.00	4	178	6,810.60
Churchbridge	1898 70	21,429		22,223	18.85	4	111	4,189.21
	1899 84	20,730.6		31,674	20.19	4	167	6,390.77
	1900 127	61,909.7		65,325	20.00	4	188	13,065.00
Edmonton	1898 48	12,346	115,033	17,068	18.80	4	156	3,209.19
	1899 49	14,149.9	70,144	17,322	20.96	4	160	3,631.56
	1900 51	18,694.7		17,069	20.00	4	168	3,417.80
	1898 77	35,170		42,838	19.04	4	149	8,156.47
Grenfell	1899 71	32,204.4		39,154	20.28	4	152	7,943.02
	1900 83	42,031.9		49,817	20.00	4	173	9,963.40
	1898 165	30,003	437,405	57,717	20.40	4	184	11,775.55
Innisfail	1899 156	68,924.8	348,682	86,040	20.69	4	184	17,845.53
	1900 130	84,429.2		89,462	20.00	4	184	17,880.40
	1898 15	11,621		12,362	20.06	4	158	2,479.09
Maple Creek	1899 12	2,283.8		7,921	21.41	4	128	1,696.56
	1900 15	8,265.8		8,806	20.60	4	151	1,761.20
	1898 30	31,580		37,999	20.00	4	179	7,509.80
Moose Jaw	1899 34	27,974.7		34,915	20.48	4	181	7,152.82
	1900 81	24,826.9		32,285	20.00	4	195	6,457.00
	1898 47	14,567		14,523	18.55	4	134	2,605.28
Moosomin	1899 40	7,725.6		8,461	20.67	4	118	1,748.94
	1900 67	22,836.5		24,296	20.00	4	152	4,859.20
Olds	1898							
	1899							
	1900 31	11,587.6		11,007	20.00	4	93	2,201.40
	1896 31	10,717	7,237	12,644	18.51	4	143	2,340.64
Prince Albert	1899 22	10,366.5		13,758	20.44	4	136	2,812.54
	1900 38	14,146.9		18,792	20.00	4	159	3,758.40
	1898 66	26,713		26,188	18.70	4	150	4,898.22
Qu'Appelle	1899 45	17,158.1		16,561	20.22	4	148	3,348.45
	1900 57	23,974.7		24,647	20.00	4	190	4,929.40
	1898 76	28,253	217,572	42,878	19.84	4	184	8,507.54
Red Deer	1899 110	40,676	157,306	62,142	20.87	4	184	12,068.23
	1900 92	49,475		63,887	20.00	4	182	12,777.40
	1898 49	24,301		25,450	19.05	4	157	4,849.26
Regina	1899 47	21,181.9		23,051	20.04	4	160	4,615.33
	1900 49	24,267.8		24,645	20.00	4	182	4,929.00
	1898 76	21,313		18,779	18.15	4	139	3,400.85
Saltcoats	1899 45	13,598.3		13,100	20.07	4	139	2,647.58
	1900 53	19,771.5		18,600	20.00	4	156	3,730.00
	1898 18	8,631	16,581	10,202	18.92	4	153	1,930.49
Saskatoon	1899 13	7,029.1	14,406	9,197	20.49	4	146	1,884.46
	1900 10	9,411.5		10,398	20.00	4	161	2,079.60
	1898							
Tindastoll	1899 66	6,350.2	162,406	14,655	21.78	4	112	3,192.51
	1900 75	37,374.1	9,798	45,770	20.00	4	184	9,154.00
	1898 58	8,576	456,914	27,186	20.68	4	192	5,449.65
Wetaskiwin	1899 71	14,815.4	403,581	32,350	20.99	4	184	6,789.29
	1900 68	16,384.1	36,413	33,770	20.00	4	184	6,754.00
	1898 85	41,371		41,308	19.07	4	166	8,450.52
Whitewood	1899 68	36,276.5		42,284	20.07	4	175	8,485.70
	1900 68	32,402.4		37,038	20.00	4	183	7,407.60
	1898 91	38,961		35,413	18.26	4	137	6,466.61
Yorkton	1899 50	48,680		17,491	20.21	4	143	3,535.19
	1900 61	27,075.5		27,320	20.00	4	165	5,465.80
The Territories	1898 1051	396,606	1,637,542	484,948	19.22	4	2,934	98,740.67
	1899 1072	407,045.8	1,303,221	501,907	20.70	4	3,185	103,492.82
	1900 1169	560,989	46,211	637,052	20.00	4	3,208	127,410.40

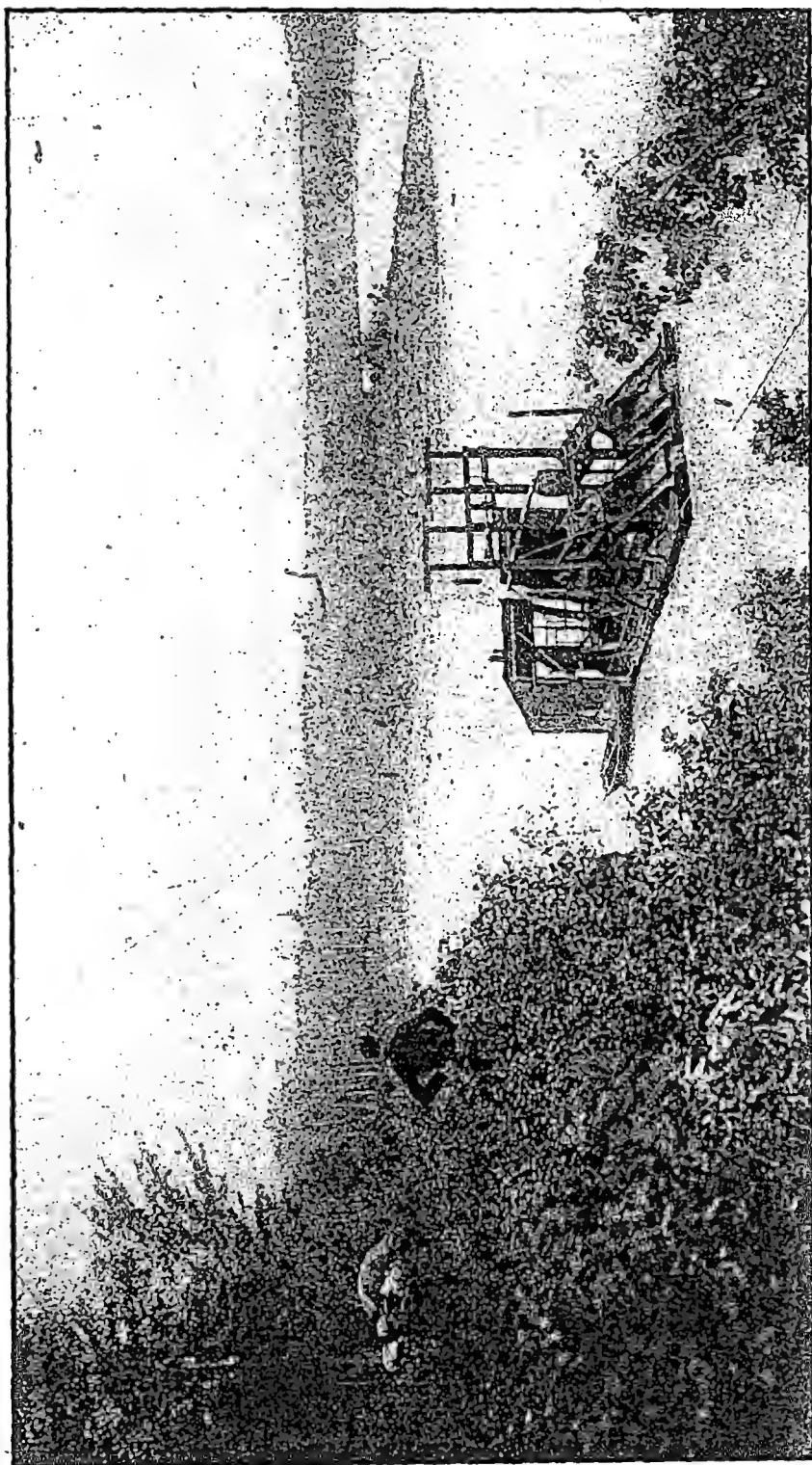
Markets and Transportation

It is a well-known fact that mining communities furnish the best possible markets for all classes of goods. As a rule, those engaged in mining are highly paid and the very nature of the industry renders the employees connected therewith quite dependent upon the outside world for every necessity of life. A mining population is a generous consumer and a good paymaster.

Down in the south-western corner of the vast Dominion of Canada lie the gold fields of the Kootenay and Cariboo on the west, and the grass and grain fields of Alberta, Assiniboia and Saskatchewan to the east of the Rocky Mountains. British Columbia is the mineral treasure house of the Dominion, and the Canadian North-West Territories are the pasture and granary at its doors. The wondrous wealth of the Kootenay has within the last two years attracted world-wide attention, while the former fame of the golden Cariboo is being rapidly revived owing to the introduction of improved mining methods. The mining development, population and consequent demand for agricultural products such as meat, poultry, butter, oats, hay and vegetables are increasing by leaps and bounds, affording for the produce of the Territories a home market in the mining districts within a reasonably short railway haul of farm and ranch. These regions are forced to import most of their supply of agricultural produce from the State of Washington, lying immediately to the south, notwithstanding the high tariff duties levied against farm products coming into Canada. On hay the duty is \$2 per ton; wheat, 12c. per bushel; potatoes, 15c. per bushel; eggs, 3c. per dozen; flour, 60c. per barrel; cheese, 3c. per lb.; fresh meats, 3c. per lb.; mutton and lamb, 35 per cent.; buckwheat meal and flour, 20 per cent.; beans, 15c. per bushel; oats, 40c. per bushel; barley, 30 per cent. on market value; apples, 36c. per barrel; cabbage, 25 per cent.; grain, 20 per cent.; butter, 4c. per lb.; pork, 2c. per lb.; poultry and game, 20 per cent.; oatmeal, 20 per cent.; cornmeal, 25 per cent.; bran, 20 per cent.

The Canadian Pacific Railway Company, recognizing the interdependence of the mining country for supplies and the farming country for a western market, have so reduced their freight rates (practically 50 per cent.) on produce from Territorial points to British Columbia as to render the business of farming in the Territories more prosperous and profitable than ever it was in the past.

All the surplus wheat grown in the Territories finds its way into the common market, viz., Great Britain. The elevator and transportation systems of Western Canada are second to none in the world. The former is now under rigid Government control. There is an almost unlimited demand for oats and barley grown in the Territories. The former is eagerly purchased in the western mining districts, and what is fit for milling purposes sells at a higher price to local oatmeal mills.



Dredging for Gold on the Saskatchewan

The extensive breweries and malting concerns operating in the Canadian North-West cannot always obtain sufficient barley. Forty-five cents a bushel is readily paid at any time for malting barley.

The other leading products of the Territories, the "four-year-old steer" and the unequalled mutton, are much sought after. Scores of buyers are scouring the country in quest of our juicy meats, which are always bought on the hoof at the home of the rancher or farmer. The more inferior animals are shipped to the mining camps of the West, which affords a ready market for all classes of beef, pork and mutton, while the tops are consigned to the British market.

Canada boasts of a transcontinental railway line from ocean to ocean; a railway unrivalled in mileage in any portion of the world, and originally projected as a national undertaking. The Canadian Pacific enters the Territories at Moosomin and traverses Assiniboia and Southern Alberta from east to west. Numerous branch lines have been constructed and extensions are made from time to time as settlement warrants the outlay. It may here be mentioned that the construction of colonization lines is generously bonused by the Federal Government, which in return retains certain control of freight and passenger rates.

The Canadian Northern Railway, which runs from the great lakes, through Manitoba into the District of Saskatchewan, is being rapidly constructed. This line will open up the fertile Saskatchewan Valley between Prince Albert and Edmonton, running north of and almost parallel to the Canadian Pacific through the entire breadth of Saskatchewan and Northern Alberta towards the Yellow Head Pass, where the Rocky Mountains open their portals and invite, by the lowest and easiest grade in Alberta, the construction of a railway through to Cariboo and the Pacific Coast beyond. This is an old natural route frequented by fur traders. The construction of this railway to the Pacific Coast will be the necessary means of fully developing the rich gold mines of Cariboo.

Besides the railway outlets, there is also that to the east down the Saskatchewan by steamboat to Lake Winnipeg, from whence the people of Manitoba propose improving the old row boat route, so as to be navigable by steamboats to the Atlantic ports of Nelson and Churchill, on Hudson's Bay. The North Saskatchewan River, running through Northern Alberta and Saskatchewan, was in the days of the fur trade the main route for all imports and exports to and from the Territories and, although most of the fleet of steamboats which, up to the advent of the railway, tapped the Saskatchewan Valley, now lie idle as population and development advance, the river will again be utilized more and more. Coal is certain to be shipped that way, and the Alberta and Saskatchewan farmer will be afforded the choice of an eastern as well as a western market, whenever Manitoba secures the opening of the Hudson's Bay route.

Mineral Resources

The Canadian North-West Territories is a country of many and varied resources, amongst which its minerals take a high place. The presence of extensive coal deposits in the Territories has already been briefly referred to. Without an adequate supply of fuel in almost every portion of the country it would not afford the attractive field for settlement which is claimed for it. A conservative estimate of the coal-bearing strata in the Territories places the area at 65,000 square miles. The following statistics of production, compiled by the Geological Surveys Department of Canada, are of special interest:

COAL

NORTH-WEST TERRITORIES : PRODUCTION

Calendar Year.	Tons.	Value.	Value per Ton at Mouth of Pit
1887.....	74,152	\$157,577	\$2.13
1888.....	115,124	183,354	1.59
1889.....	97,364	179,640	1.85
1890.....	128,953	198,498	1.54
1891.....	174,131	437,243	2.51
1892.....	184,370	469,930	2.55
1893.....	238,395	598,745	2.51
1894.....	199,991	488,980	2.45
1895.....	185,654	414,064	2.23
1896.....	225,868	606,891	2.69
1897.....	267,163	667,908	2.50
*1898.....	338,661	.....	.....
*1899.....	346,229	.....	.....
*1900.....	321,279	.....	.....

*No statistics as to value compiled since 1897.

The coal mines already discovered are of sufficient capacity to supply the whole of Canada with fuel for centuries. Lignites are now mined at Estevan, in Eastern Assiniboia; Medicine Hat and Cypress Hills, in Western Assiniboia; Red Deer, Otonkewan, Edmonton, Sturgeon River and Victoria, in Northern Alberta; and are obtained at the pit's mouth at from 65c. to \$2.50 per ton, according to the demand—the greater the sale the lower the price. Semi-bituminous coal is mined at Lethbridge (where \$1,500,000 have been invested), Pot Hole, Milk River Ridge, Woodpecker, Crowfoot and Knee Hill Creek, in Southern Alberta, and is obtained at from \$1.50 to \$3.00 per ton. The true bituminous is mined at Waterton River, Pincher Creek, on each of the south, middle and north branches of the Old Man's River, on High River, Sheep Creek, Fish Creek, Bow River and Canmore, also in Southern Alberta, and is worth about the same as the semi-bituminous. True anthracite coal is mined at Anthracite (four miles from Banff), and is sold aboard cars at from \$2.00 to \$5.00 per ton, according to grade. There are extensive

colleries at Lethbridge, Canmore and Anthracite. The Government issues permits to mine on Dominion lands at the following royalties: 10c. per ton for lignite, 15c. for bituminous, and 20c. for anthracite. The coal mining industry of the Territories affords employment to about 850 men.

Another important kindred industry which is rapidly springing into prominence is the manufacture of coke, now progressing along the line of the Crow's Nest Railway, in Southern Alberta. Extensive beds of excellent coking coal are found there. This industry is bound to develop rapidly, and is already employing a large number of people.

For over thirty years gold dust of the finest quality has been washed out of the sands of the North Saskatchewan River, for 100 miles above and 200 miles below Edmonton, during low stages of water, by individual miners using only the primitive pick, shovel and grizzly. Scientific investigations have, however, been made with the result that some of the newest and best dredging and gold-saving machinery has been put in operation on the river by a number of experienced miners with capital. Meanwhile, those best informed on the subject consider that the dredging of the river bed and the hydraulic sluicing of the flats and terraces of the valley will yield enormous profits to capital skilfully applied. It is also believed that cheap and simple apparatus will be devised to enable the "poor man's diggings" to be prosecuted with greater profit and success. Men of science declare the existence of a continuation of those metalliferous deposits which are now making the fortunes of the gold miners of the Rainy River and Lake of the Woods, east of Manitoba, and of those of the Canadian Yukon in the vast unorganized districts lying north of Alberta and Saskatchewan. No investigation into these latent possibilities has as yet been made.

Enormous veins of galena have been located which are pronounced by experts to contain a large percentage of silver. Capital alone is wanting to make them treasures of wealth to the country. Copper ore in vast quantities has also been found, said to contain 60 per cent. of pure copper. Iron ore has been discovered in various parts of Alberta. A forty-foot seam of hematite iron, said to contain 67 per cent. of iron, exists at the base of Storm Mountain, quite close to the railway line, and other large seams have been located in the Macleod District, in Southern Alberta.

Petroleum has been discovered from time to time in various portions of the Territories. The Dominion Geological Surveys' staff has recently explored Northern Alberta and made several test borings with most satisfactory results. It might also be appropriate to mention the fact that natural gas exists all through Western Assiniboia and Alberta. In some cases wells have been flowing for upwards of fifteen years without any apparent evidence of decrease in pressure.

Shooting and Fishing

Between Moosomin and Qu'Appelle prairie chickens (grouse) are plentiful, and ducks are also to be had in the neighbourhood of Broadview. North of Qu'Appelle big game may be found. At Yellow Grass, on the "Soo" branch line from Pasqua, ground which has seldom been shot over, ducks, geese and plover are in myriads during most seasons. In the Dirt Hills, about 20 miles south of Regina, deer and antelope, beside wild fowl, are fairly plentiful; and in the district about Regina there are innumerable opportunities for bags of duck and chicken, and nearly all the species of plover.

The "Mecca" of goose shooting is to be had on the south side of Buffalo Lake, about 20 miles north of Moose Jaw; wild geese in countless thousands come down from their feeding grounds in the Arctic circle in the months of September and October, and remain there until they take their departure for the south when ice begins to form on the lake. The country to the south of the lake is well settled, and the wheat stubble fields afford excellent feeding grounds. Proper hides dug in the stubble fields in the line of flight of the geese, and decoys set out, will afford the finest goose shooting the keenest sportsman can imagine.

On the branch railway from Regina to Prince Albert sportsmen should get goods bags at Lumsden, and chickens and ducks at Duck Lake and Prince Albert, while in the illimitable pine forest beyond that town, which is reached by line from Regina, game of nearly every description abounds, Montreal and Red Deer Lakes being especially good spots. Complete outfits can be procured at Prince Albert.

Rush Lake, a few miles from the station, on the main line of the Canadian Pacific Railway, is one of the finest points for geese, duck and other water fowl, where large bags can surely be made. Farther west, again, is the antelope country, Swift Current, Maple Creek and Medicine Hat being among the best outfitting points for a trip after these, the most beautiful animals of the plains. At Calgary, in sight of the "Rockies," superb sport may be enjoyed with the grouse among the brushy foothills of the giant range. Good shooting will be found within easy driving distance of the town, and glorious mountain trout fishing on the Bow River and its tributaries, to say nothing of the delights of visiting the ranches.

Edmonton, which is the extreme limit of the railroad, is the gateway to the wild, half-known country to the north, a huge territory most abundantly stocked with game. In the Smoky River District, which is several hundred miles north of Edmonton, there are yet a few wood buffalo, the best authorities say about seventy-five head in all. These the Mounted Police are striving strenuously to protect, but their extinction is much to be feared. Moose exist in large numbers in the forest-covered country between the North Saskatchewan and Lake Athabasca, and are to be found in the extension of the same belt to the north-west of it,

even into Alaska. To the northward of the Great Slave Lake, that vast solitude known as the barren lands extends to the very shores of the frozen sea. It is the home of the musk ox, the barren ground caribou, the wolf, the glutton, and the arctic fox. Along the shores that bound it the polar bear may frequently be shot. It is a region full of interest to the naturalist and to the explorer.

In Southern Alberta, reached by the Macleod branch from Calgary, or by the Crow's Nest Pass Railway from near Medicine Hat, especially in that portion of it lying between Macleod and the mountains, there is the same wonderful variety of game to be found as in other parts of the North-West Territories, with the addition of blue grouse (cock of the mountains), as the foothills are approached. There is good chicken, goose and duck shooting between Macleod and the international boundary. Swans are also bagged occasionally. Trout are plentiful in the three branches of the Old Man River and in its numerable tributaries west of Macleod, and the most enticing bait for a big one is a mouse. There is also good fishing in the St. Mary's and Waterton (also called the Kootenay) and in all their branches, and capital sport with either gun or line can be obtained in the chain of Kootenay Lakes on the eastern slope of the Rocky Mountains. Salmon trout weighing from 15 lbs. to 40 lbs. are among the catches in Eastern Kootenay. In the mountains back of these lakes, grizzly, cinnamon, silver tip and black bear, mountain sheep and goat are fairly plentiful. Guides are necessary, and the tourist will find good men in any of the settlements and stations along the line of the Crow's Nest Pass Railway. This new line has brought a great, undisturbed game country within easy reach of the sportsman.

OPEN SEASON IN THE TERRITORIES.

- Big Game.*—Elk, moose, caribou, antelope, deer or their fawn, November 2nd to December 14th. (It is forbidden to take more than three of any one species in any one year.)
Mountain sheep or goat, October 2nd to December 14th.
Mink, fisher or martin, November 2nd to April 14th.
Otter or beaver, October 2nd to May 14th, except in East Assiniboia, where beaver are protected until November, 1901.
Muskrat, November 2nd to May 14th.
Buffalo are protected at all times.
Small Game.—Grouse, partridge, pheasant, or prairie chicken, September 16th to December 14th, and no more than 20 in one day.
Wild duck of all varieties, August 24th to May 4th.
Snipe and sandpiper, August 24th to May 4th.

SHOOTING LICENCES.

Permits are granted by game guardians for periods not exceeding five days to any non-resident who is the *bona fide* guest of a resident, to shoot in company with his host. Affidavits must be made by the applicant and such resident. Fee, \$1.00. Shooting licences, issued by the Commissioner of Agriculture, Regina, \$15.00.

FISHING.

- Speckled trout, May 2nd to September 14th.
Maskinonge, May 16th to April 14th.
Salmon trout, December 16th to October 4th.
Pickerel (dore), May 16th to April 14th.
Whitefish, December 16th to October 4th.
Sturgeon, June 16th to May 14th

Homestead Regulations

Entry may be made by any male over 18 years of age or female head of a family, for one quarter of any unoccupied even-numbered section of land in the Canadian North-West Territories personally, at the local land office for the district in which the land to be taken is situate, or if the homesteader desires, he may, on application to the Minister of the Interior, Ottawa, the Commissioner of Immigration, Winnipeg, or the Local Agent for the district in which the land is situate, receive authority for some one to make entry for him. A fee of \$10.00 is charged for an ordinary homestead entry.

Under the present law homestead duties must be performed in one of the following ways, namely:

(1) By at least six months' residence upon and cultivation of the land in each year during the term of three years.

(2) If the father (or the mother, if the father is deceased) of any person who is eligible to make a homestead entry, resides upon a farm in the vicinity of the land entered for by such person as a homestead, the requirements of the law as to residence prior to obtaining patent may be satisfied by such person residing with the father or mother.

(3) If the settler has his permanent residence upon farming land owned by him in the vicinity of his homestead, the requirements of the law as to residence may be satisfied by residence upon the said land.

Railway Land Regulations

The Canadian Pacific Railway lands consist of the odd-numbered sections along the main line and branches, and the Saskatchewan, Battle and Red Deer River Districts in Alberta. The lands are for sale at the following prices: Lands in Assiniboia, east of the 3rd meridian, average \$3.00 to \$4.00 an acre; west of the 3rd meridian, including most of the valuable lands in the Calgary District, \$3.00 per acre; in Saskatchewan, Battle and Red Deer River Districts, \$3.00 per acre. For the convenience of investors, maps, showing in detail the lands and prices, have been prepared and will be sent free to applicants. Apply to F. T. Griffin, Land Commissioner, Winnipeg, or to W. Toole, Land Agent, Calgary, Alberta.

The Calgary and Edmonton Land Company has a land grant of 1,850,000 acres of odd-numbered sections in the territory lying along the eastern slope of the Rocky Mountains, consisting of fine agricultural and ranching land in Alberta. These sections are for sale by the company, without cultivation or residential conditions. Usual price, \$3.00 per acre. Terms of payment: One-tenth cash and the balance in nine annual payments, with interest at 6 per cent. Ten cents per acre, cost of Government survey, will be added in each case. This

amount will be payable with final instalment of purchase money and without interest. Agents: Osler, Hammond & Nanton, 381 Main Street, Winnipeg, Man., or C. S. Lott, Calgary, Alberta.

The Qu'Appelle, Long Lake and Saskatchewan Land Company has for sale 1,000,000 acres of odd-numbered sections, consisting of farm land in Saskatchewan and Assiniboia. These lands are for sale by the Company, without cultivation or residential conditions. Usual price, \$3.00 per acre. Terms of payment: One-tenth cash and the balance in nine annual payments, with interest at 6 per cent. Ten cents per acre, cost of Government survey, will be added in each case. This amount will be payable with final instalment of purchase money and without interest. Agents: Osler, Hammond & Nanton, 381 Main Street, Winnipeg, Man., or C. S. Lott, Calgary, Alberta.

The Winnipeg Western Land Corporation owns about half a million acres of odd-numbered sections along the Manitoba-North-Western Railway in Assiniboia and the projected extension of this road into Saskatchewan. Price generally \$3.00 per acre. Agents: Osler, Hammond & Nanton, Winnipeg.

The Alberta Railway & Coal Company has an extensive land grant in Southern Alberta, largely under irrigation, at prices varying with location. Apply to C. A. Magrath, Land Commissioner, Lethbridge, Alberta.

Hudson's Bay Company's lands comprise one-twentieth part of all the fertile belt, and in the surveyed townships consist of section 8 and three-fourths of section 26 in each township. The terms for these can be obtained on application to the Hudson's Bay Company's Land Office, Winnipeg.

Further information respecting the Canadian North-West Territories will gladly be furnished upon application to

C. W. PETERSON,

Deputy Commissioner of Agriculture,
Regina, N. W. T., Canada.

FRANK PEDLEY,

Superintendent of Immigration,
Ottawa, Ont., Canada.

J. O. SMITH,

Commissioner of Immigration,
Winnipeg, Man., Canada.

Or to the Agent of Dominion Lands at any of the following points in the Territories: Prince Albert, Regina, Battleford, Alameda, Edmonton, Yorkton, Calgary, Lethbridge.

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